

LEVINSON

FY 94 ANNUAL GROWTH POLICY

October 15, 1992

**Includes
Guidelines for Administration
of the
Adequate Public Facilities Ordinance
and
Growth Capacity Ceilings
for FY 94**

STAFF DRAFT





FY 94 ANNUAL GROWTH POLICY

October 15, 1992

**Includes
Guidelines for Administration
of the
Adequate Public Facilities Ordinance
and
Growth Capacity Ceilings
for FY 94**

STAFF DRAFT



STAFF DRAFT
FY 94 ANNUAL GROWTH POLICY

Prepared By:

THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION
Montgomery County Planning Board
8787 Georgia Avenue
Silver Spring, Maryland 20910-3760
October 1992

ABSTRACT

TITLE: FY 94 Annual Growth Policy

AUTHOR: The Maryland-National Capital Park and Planning
Commission, Montgomery County Planning Board

SUBJECT: FY 94 Annual Growth Policy Report

PLANNING AGENCY: The Maryland-National Capital Park and Planning
Commission

SOURCE OF COPIES: The Maryland-National Capital Park and Planning
Commission
8787 Georgia Avenue
Silver Spring, Maryland 20910-3760
301-495-4700

DATE: October 1992

NUMBER OF PAGES: 210

ABSTRACT: Montgomery County Council Bill No. 11-86 established the process by which Council provides guidance for the management of growth. In accordance with this law, the Montgomery County Planning department has prepared this staff draft of the FY 94 Annual Growth Policy (AGP); the Planning Board will prepare its final draft for transmission to the County Executive for revision before transmission to the County Council. The report includes general policy guidelines and information for growth management of the Adequate Public Facilities Ordinance by the Montgomery County Planning Board.

ELECTED AND APPOINTED OFFICIALS

COUNTY COUNCIL

Bruce Adams, President
Marilyn J. Praisner, Vice President
Derick P. Berlage
Nancy Dacek
Gail Ewing
William E. Hanna, Jr.
Betty Ann Krahne
Isiah Leggett
Michael J. Subin

COUNTY EXECUTIVE

Neal Potter

THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

John W. Rhoads, Chairman
Gus Bauman, Vice Chairman

Montgomery County Planning Board

Gus Bauman, Chairman
Nancy M. Floreen, Vice Chair
Ruthann Aron
Patricia S. Baptiste
Davis M. Richardson

Prince George's County Planning Board

John W. Rhoads, Chairman
Howard W. Stone, Jr., Vice Chairman
James M. Brown
Regina J. McNeill
Norris W. Sydnor, Jr.

EXECUTIVE SUMMARY

The Development of Montgomery County's FY 94 Annual Growth Policy began with the adoption of the FY 93 Annual Growth Policy by the County Council in June 1992, when the Council identified seven issues to be addressed in the AGP process during FY 1993. Along with the Montgomery County Planning Department staff's proposed growth capacity ceilings for FY 94, this report includes:

- an analysis of alternative assumptions about the absorption of the County's pipeline of approved development when evaluating the adequacy of public facilities;
- a re-evaluation of the methodologies used to determine the adequacy of transportation facilities, including how or whether to include highways in the calculation of staging ceilings, how or whether to restructure level of service categories to be more sensitive to non-automobile modes of transportation, and whether the critical lane volume standards for Local Area Transportation Review should be modified; and
- possible structural changes to the Annual Growth Policy process, building on a consultant study released this past spring.

These three issues are addressed in detail within this document and will be the subject of a public forum on Tuesday, November 17, 1992 at 7:30 P.M. at the Planning Commission offices, 8787 Georgia Avenue in Silver Spring. The focus of the three issue papers is not to propose one or two solutions to the issues under study, but rather to provide the background necessary for informed discussion at the public forum. Because the three questions are fundamental to the administration of the adequate public facilities ordinance, staff believes that public comment is an essential component of any evaluation of the options contained herein.

In addition, the Council asked that four additional issues be addressed: proposed Metro station policy areas in North Bethesda, options for increasing capacity in the Germantown Town Center policy area, proposed guidelines for traffic mitigation, and the methodology used to determine the adequacy of public school facilities. These four subjects have been placed on separate tracks from the AGP process itself; discussion of the progress made in addressing these questions is included in Chapter III.

Over the past several years, the Montgomery County Planning Department has explored options for strengthening the linkages between the AGP, the Capital Improvements Program (CIP), and the County's adopted Master Plans and functional plans. For the past two years, the Planning Department staff has developed and transmitted comments on the CIP to the staffs of the Executive agencies, Montgomery County Public Schools, the Washington Suburban Sanitary Commission and the Revenue Authority at the start of the CIP process. This effort compliments and strengthens the annual Planning Board review of the Executive's Recommended CIP each January. Recognizing the interdependence of the AGP and CIP, a more fully expanded section focusing on the Planning Department's CIP recommendations is included in this year's AGP.

A number of other initiatives, such as providing direction in master plans as to the appropriate phasing of capital projects, are currently being pursued and are described in Chapter V.

TABLE OF CONTENTS

	PAGE
EXECUTIVE SUMMARY	i
I. OVERVIEW OF THE ANNUAL GROWTH POLICY	3
1. Background	3
2. Purpose	3
3. Transportation Facilities	4
4. Public School Facilities	6
5. Water and Sewerage Facilities	6
6. Police, Fire and Health Facilities	7
7. Approvals Above AGP Ceilings	7
8. Staging Ceiling Flexibility	9
II. GROWTH POLICY INTERRELATIONSHIPS	10
1. Land Use Policy	10
2. Economic Policy	11
3. Housing Policy	11
4. Transportation Policy	11
5. Community Facilities Policy	12
6. Natural Resources Policy	13
7. Social Policy	14
8. Fiscal Policy	14
III. FY94 ANNUAL GROWTH POLICY ISSUES	16
1. Pipeline Analysis	17
2. North Bethesda Policy Area	38
3. Germantown Town Center Policy Area	38
4. Traffic Mitigation	38
5. Determining the Adequacy of Transportation Facilities - Methodology	39
6. Public School Capacity	72
7. Changing the AGP Process - Analysis of Alternatives	72
IV. FY94 STAGING CEILING RECOMMENDATIONS	
1. Transportation Staging Ceilings	82
2. Public School Capacities	103
V. CAPITAL IMPROVEMENTS PROGRAM RECOMMENDATIONS	104
1. Introduction	104
2. MCPB CIP Recommendations: Function and Process	104
3. Planning Department CIP Recommendations	105

VI.	FY94 ANNUAL GROWTH POLICY RESOLUTION	111
VI.	APPENDICES	A-1
1.	Definitions and Key Variables	A-1
2.	Annual Growth Policy Legislation	A-13
3.	Adequate Public Facilities Ordinance . .	A-17
4.	Policy Area Maps	A-21
5.	Policy Area Staging Tables	A-39
6.	The Capital Improvements Program	A-50

Chapter 1

Overview Of The Annual Growth Policy

I. OVERVIEW OF THE ANNUAL GROWTH POLICY

1. BACKGROUND

The Montgomery County Council adopted the Adequate Public Facilities Ordinance (APFO) in 1973 as part of the Montgomery County Subdivision Ordinance. The County uses the APFO to promote orderly growth by synchronizing development with the availability of public facilities needed to support that development. The Montgomery County Planning Board administers the Subdivision Ordinance and the APFO. In April of 1986, the County Council enacted legislation which established an Annual Growth Policy (AGP) for the County. Since that time, the Council has used the AGP to direct the Planning Board's administration of the County's APFO. A copy of the Adequate Public Facilities Ordinance and the Annual Growth Policy legislation can be found in Appendices 2 and 3.

2. PURPOSE

The Annual Growth Policy legislation states that "the annual growth policy...is intended to be an instrument that facilitates and coordinates the use of the various powers of government to limit or encourage growth and development in a manner that best enhances the general health, welfare, and safety of the residents of the county." County officials use the AGP to match the timing of private development with the availability of public facilities. The timing aspect of the AGP cannot be over-emphasized. The AGP is designed to affect the staging of development, not the location, total amount, type, or mix of development. These latter issues are dealt with in master plans, sector plans, and the County's General Plan. The AGP has two components:

- Identifying the need for public facilities to support private development; and
- Constraining the amount of private subdivision approvals to those which can be accommodated by the existing and programmed public facilities that the County and other levels of government can produce in a given time frame.

The relative timing of development approval and provision of public facilities are what the APFO and the AGP are all about. The APFO mandates that the Planning Board not approve a preliminary plan of subdivision unless it finds that the public facilities in place or programmed in the local and state capital improvements programs will be adequate to serve the subdivision, along with all other approved development. The Annual Growth Policy tests the adequacy of four types of facilities:

- Transportation;
- Schools;
- Water and Sewerage Facilities; and
- Police, Fire and Health Services.

3. TRANSPORTATION FACILITIES

In general, preliminary plan applications must pass two different transportation tests before they can be approved by the Planning Board. The two tests are:

- *Policy Area Transportation Review* for all plans generating more than 5 trips, and
- *Local Area Transportation Review* for all plans generating 50 or more trips.

There are certain types and sizes of projects which are exempt from Policy Area Transportation Review as described in sections 7 and 8 of this chapter. In addition, developers have the opportunity to provide transportation improvements, ride-sharing programs, and traffic mitigation programs to solve their Policy and Local Area Transportation Review problems.

A. Policy Area Transportation Review

In 1982, the County began using Policy Area Transportation Review to evaluate the adequacy of transportation facilities. For this test, the County currently is divided into 22 policy areas and the Group I (rural) areas, as designated by the County Council. The policy area boundaries generally are based on physical features such as rivers, parks, and freeways, on the similarity of transportation characteristics, and on administrative boundaries, such as City/County or Sector Plan area boundaries.

The Policy Area Transportation Review test looks at both the upstream and downstream traffic impacts of existing development and approved but unbuilt new development (the development pipeline) to determine whether there is sufficient transportation capacity to accommodate more preliminary plan approvals in a policy area. The development pipeline includes previous preliminary plan approvals by the Montgomery County Planning Board; site plan, use permit, and record plat approvals by the cities of Gaithersburg, Poolesville, and Rockville; and building permits signed off by the Planning Department for public buildings and pre-1982 recorded lots.

Based on this policy area transportation review, the Council each year establishes jobs and housing staging ceilings for the 22 policy areas. The staging ceiling is defined as the maximum amount of development, in jobs and housing units, that can be accommodated by the existing and programmed transportation facilities serving the policy area, given an assigned level of roadway congestion. A programmed transportation facility is defined as those transportation projects for which 100 percent of the expenditures for construction are scheduled to occur within the first four years of the County or state program.

The amount of roadway congestion is measured by a transportation level of service standard assigned to the policy area. The Council assigns each policy area an acceptable average level of service (LOS) standard, based on a policy that permits greater traffic congestion in areas in which greater transit availability provides an alternative mode of travel to the automobile. Thus, in areas where there is greater availability and accessibility of transit, greater traffic congestion is allowed, and in areas where the availability and accessibility of transit is lower, less traffic congestion is allowed. This provides for a relatively equivalent overall transportation level of service throughout the County. Currently, there are six LOS groups ranging from Group I, which has a marginal availability of transit services, (e.g., a rural area) to Group VI, which has an expanded transit system consisting of Metrorail and expanded bus service (e.g., Silver Spring CBD). Ceilings for Town Center and Metro Station Policy Areas are established based on a combination of comprehensive local area transportation review and analysis of area-wide traffic congestion.

In a policy area where the amount of existing and approved development exceeds the staging ceiling set by the Council, the Planning Board may not approve any new preliminary subdivision plans, except under certain special circumstances described in sections 7 and 8 of this chapter. The level of roadway congestion in this situation, once all approved development is built, will exceed the standard set by the County Council for that policy area.

B. Local Area Transportation Review

Since the mid 1970s, the Planning Board has used the Local Area Transportation Review (LATR) test to determine if the proposed preliminary plan of subdivision will cause unacceptable local traffic congestion problems at nearby critical intersections. Local Area Transportation Review is required only for subdivisions which generate 50 or more peak hour automobile trips.

In administering the LATR, the Planning Board must not approve a subdivision if it finds that an unacceptable peak hour level of service will result after taking into account existing and programmed roads, available and programmed mass transit, and improvements to be provided by the applicant. The applicant may make intersection improvements or provide trip reduction measures to offset their traffic impact, and thus gain preliminary plan approval. If the subdivision will affect an intersection or roadway for which congestion is already unacceptable, then the Planning Board may approve the subdivision only if it does not make the situation worse.

There are three level of service standards for LATR based on the same theory as is used in assigning policy area level of service standards. In other words, less traffic congestion is allowed in areas with lower transit availability and more traffic congestion is allowed in areas with greater transit availability. For Group I areas (the rural areas)

anything worse than local level of service D is unacceptable for LATR. For Group II to Group V Areas, a peak hour level of service worse than the midpoint of LOS E is unacceptable. For Group VI, the Silver Spring CBD, a peak hour local level of service of the maximum of LOS E/F is acceptable as long as the project does not create too long a queue at nearby signalized intersections.

The definition of eligible transportation projects for LATR is tighter than the definition of eligible projects for Policy Area Review. For LATR, the only programmed transportation projects to be considered available are those included in the most recent edition of the County Executive's "Approved Road Program." This document includes roads programmed in the current approved local and state capital improvements programs for which:

- The County Executive has determined that construction will begin within two years; and
- In the case of the County CIP, 100 percent of the expenditures for contracts have been appropriated.

4. PUBLIC SCHOOL FACILITIES

Since FY 89, the Council has tested public school capacity for the County's 21 high school clusters to determine if there is sufficient capacity to support additional preliminary plan approvals during that fiscal year. Each of the three grade levels - elementary, junior/intermediate/middle (JIM), and high school is assessed separately. The Council compares forecast enrollment in each high school cluster four years out to the capacity that is programmed in the fourth year of the CIP.

For APFO purposes, school capacity is considered adequate for a cluster if forecast enrollment does not exceed 110 percent of the Council funded program capacity. If sufficient capacity is not available in the immediate cluster, the Council looks to see if an adjacent cluster or clusters have sufficient capacity to cover the projected deficit in school capacity for APFO purposes. If these combined clusters do not have sufficient capacity, then schools are considered inadequate for APFO purposes and the Planning Board will be unable to approve a new preliminary plan in that cluster for the next fiscal year.

5. WATER AND SEWERAGE FACILITIES

The APFO and the AGP consider preliminary plans to be adequately served by water and sewerage facilities if they are located in an area in which water and sewer service is presently available, under construction, or designated by the Council for extension of service within the first two years of a current approved Comprehensive Water Supply and Sewerage Systems Plan. Facilities are also considered adequate if the applicant either provides a community water and/or sewerage system, or meets County Health Department requirements for septic and/or well systems.

6. POLICE, FIRE, AND HEALTH SERVICES

The Planning Board considers police, fire, and health services to be adequate unless agency review and public commentary indicates that a local area problem will be generated by a new subdivision. If such evidence exists, a Local Area Review must be undertaken to determine whether facility capacity at the end of the sixth year of the approved CIP is sufficient to accommodate the demand generated by the "most probable" forecast for the same year.

7. APPROVALS ABOVE AGP STAGING CEILINGS IN AREAS WITH NO REMAINING STAGING CEILING CAPACITY

To balance the County's growth management policies (the APFO and the AGP) with other County policies and concerns and to protect the public interest, the Council has authorized the Planning Board to approve subdivisions in areas where there is no remaining staging ceiling capacity under certain special conditions. A summary of these conditions follows.

A. Places of Worship

The Adequate Public Facilities Ordinance exempts places of worship and residences for staff, parish halls, and additions to schools associated with places of worship from all adequate public facilities tests including Policy Area Transportation Review and Local Area Transportation Review.

B. Small Scale Development - De minimis

The Annual Growth Policy's De minimis rule allows the Planning Board to approve preliminary plans that will have minor traffic impacts, even if there is insufficient staging ceiling capacity for Policy Area Transportation Review. This exemption defines De minimis development as that which will generate fewer than 5 peak hour trips. Since this provision applies only to projects generating five or less trips, these projects are automatically exempt from Local Area Transportation Review. Some examples of De minimis developments are 4 single-family detached housing units or 2,250 square feet of office space.

C. Affordable Housing

The Annual Growth Policy's special ceiling allocation for affordable housing allows the Planning Board to approve, under certain conditions, preliminary plans for affordable housing in a policy area with insufficient staging ceiling capacity for Policy Area Transportation Review. These affordable housing developments, however, must pass all other public facilities tests including Local Area Transportation Review.

The development must be certified by the Housing Opportunities Commission (HOC) as having met the definition of affordable housing, and the owner of the development must enter into an agreement with HOC to maintain the occupancy requirements for at least 15 years. An affordable housing development is defined as a housing development which is either

owned by the Housing Opportunities Commission or by a partnership in which HOC is the general partner; or, a privately-owned housing development in which 20 percent of the units are occupied by households at or below 50 percent of the area median income, adjusted for family size, or 40 percent of the units are occupied by households at or below 60 percent of the area median income, adjusted for family size.

For projects owned or controlled by HOC, the Planning Board may approve up to a total of 125 units in a policy area in a fiscal year. In privately owned affordable housing developments, the Planning Board may approve up to 300 units in a policy area in a fiscal year. In a policy area with both HOC owned and controlled developments and privately owned affordable housing developments, the Board may approve a total of 300 units in a fiscal year.

In policy areas that have been in a moratorium for new housing subdivisions more than four consecutive years and where more than 500 housing units have been approved under the affordable housing special ceiling allocation, this special ceiling allocation for affordable housing shall not be granted if the net remaining capacity is less than minus 2000, until transportation improvements are made to increase the net remaining capacity to an amount greater than minus 2000 housing units (i.e. to a condition where the pipeline minus the ceiling is less than 2000 units).

D. Health Care Facilities

The Annual Growth Policy's special ceiling allocation for health care facilities allows the Planning Board to approve a medical office building or medical or dental clinic, as permitted in the zoning ordinance, in policy areas with insufficient staging ceiling capacity for Policy Area Transportation Review. These health care facilities, however, must pass all other public facilities tests including Local Area Transportation Review.

This special allocation does not include home health care agencies. The exemption requires a finding that a need exists for the proposed facility. This can be satisfied by a State certificate of need or by a Planning Board determination that a need exists for the proposed facility within the policy area due to an insufficient number of practitioners or facilities providing similar medical services.

E. Previously Recorded Lots ("Loophole" Properties)

As discussed earlier, the AGP provides guidelines to implement the Adequate Public Facilities Ordinance (APFO), which is part of the County's subdivision regulations. Since previously recorded lots have already received subdivision approval, they have traditionally been exempt from new AGP requirements. In 1989, due to increasing concern that these "loophole" properties, lots recorded prior to 1982 or recorded in conformance with a preliminary plan approved prior to 1982, had been approved under a less stringent APFO transportation test (or none at all),

the Council passed Bill 25-89. This bill requires non-residential lots approved prior to 1982 to pass Local Area Transportation Review prior to building permit, but exempts them from Policy Area Transportation Review until July 2001, if they registered with the Planning Board before July 1, 1990. There are approximately 1,340 "loophole" properties covered by Bill 25-89. Previously recorded residential lots continue to be exempt from APFO controls.

8. STAGING CEILING FLEXIBILITY

The Annual Growth Policy provides an option for applications which exceed the Policy Area staging ceiling to receive preliminary plan approval if the developer commits to fully mitigate the traffic impacts of the project. Currently, there are two types of staging ceiling flexibility for Policy Area Transportation Review:

- Full-cost developer participation; and
- Partial-cost developer participation.

Both types enable a preliminary plan to pass Policy Area Transportation Review, and also require the plan to pass all other public facilities tests including Local Area Transportation Review.

A. Full-Cost Developer Participation

Full-cost developer participation allows the Planning Board to approve a preliminary plan in areas where there is insufficient staging ceiling capacity when the applicant agrees to pay for the construction of a public facility project such as a road, or to provide the full cost of a transit, paratransit, or ride-sharing program. The public facilities project has to add as much capacity to the transportation system as the proposed development will generate. If the developer, for a period of 10 years, provides a traffic mitigation program, the program must reduce the number of peak-hour, peak-direction automobile trips by as many trips as would be generated by the proposed development.

B. Partial-Cost Developer Participation

Partial-cost developer participation allows the Planning Board to approve a preliminary plan in areas where there is insufficient staging ceiling capacity when the applicant agrees to partially fund transportation facilities needed to serve that development. It is available only for certain types of development such as: 1) projects for the expansion or consolidation of employment facilities which have specific and defined employment needs, 2) planned development projects in the town sector, planned retirement community, MXPDP, and transit station development zones, 3) projects located in the R & D Village, or 4) projects located in the Germantown Town Center. Applicants for these projects must agree to condition preliminary plan approval on a staging schedule which links building permits to the execution of specific transportation construction contracts.

Chapter 2

Growth Policy Interrelationships

II. GROWTH POLICY INTERRELATIONSHIPS

The Adequate Public Facilities Ordinance (APFO), with its staging mechanism, represents only one of many policies that the County has adopted over the years. In the Annual Growth Policy (AGP), elected and appointed officials have an opportunity to begin to balance the APFO staging policies with other adopted and stated County policies.

The Annual Growth Policy identifies geographic areas of the County where preliminary plan approvals can occur and areas where approvals will be constrained. In some cases, such constraints may interfere with other County policies. For example, a County policy to provide housing for low and moderate income families may be difficult to implement if there is no remaining housing staging ceiling capacity in many policy areas. Thus, the AGP allows affordable housing developments up to a total of 300 units per policy area to be approved in FY93, despite any subdivision moratorium, unless certain extreme conditions exist.

The major source of overall development policy in the County is in the County General Plan, "On Wedges and Corridors." A process was started in FY92 to refine the goals and objectives of this General Plan. The resulting Amendment to the General Plan is not expected to be acted on by Council until June 1993. The Public Hearing Draft (Preliminary Draft) is available from the Planning Department. Other sources include master plans, functional plans, and specific policy statements expressed in the programs and budgets carried out by County departments, offices, and commissions.

The following paragraphs provide a summary of long-term policies for each of eight policy elements: land use, economic, housing, transportation, community facilities, natural resources, social, and fiscal policies. These policies may be updated by the General Plan Amendment. More information on most current policies of the County's executive agencies can be found in the County's adopted budget documents.

1. LAND USE POLICY

Land use policies affect the pattern and intensities of the uses of land for housing, business, industry, open space, public buildings and services, and education. General County land use policy includes the following:

- Use land efficiently to prevent land waste and to decrease the cost of providing public facilities and services;
- Achieve a balance in type and distribution of land uses that provides an environment and diversity of life styles that meets the needs and desires of County residents; and
- Direct land use in a manner that protects both private property rights and the public interest.

2. ECONOMIC POLICY

Economic policies are those policies that affect economic development and employment in the County. Economic policies in the Montgomery County General Plan (1970) include the following:

- Encourage the development of employment opportunities to provide for growth in economic opportunity, to expand our tax base, and to increase career opportunities within the County's borders;
- Ensure that employment areas are provided with adequate access to a variety of modes of transportation; and
- Revitalize and encourage the development and redevelopment of the central business districts that offer retail, professional services, housing, and employment opportunities.

3. HOUSING POLICY

Housing policies affect the development, preservation, improvement, and cost of housing in the County to meet the needs of all socio-economic sectors. Housing policies in the Montgomery County General Plan (1970) include the following:

- Provide land for, and encourage development of, a variety of residential types and densities which can accommodate households with different needs and incomes;
- Protect existing housing and provide for the development of new housing within reasonable distance of workplaces, recreation, shopping, community facilities, and mass transportation;
- Encourage the location of housing of various densities, types, and costs in proximity to most places of employment; and
- Achieve a balanced relationship between residential growth and employment opportunities within the County.

4. TRANSPORTATION POLICY

Transportation policies deal with the location, extent, and cost of existing and proposed roads, transit routes, sidewalks, bicycle paths, and parking. General County transportation policies include the following:

- Coordinate the timing of private development with the provision of transportation facilities, sidewalks, and bicycle paths;
- Provide convenient, accessible, and reasonably-priced mass transit opportunities so that residents have alternative ways to travel to work, school, recreation, and social events;

- Provide an efficient system of transportation, including rapid transit;
- Provide a balanced circulation system which most efficiently serves the economic, social, and environmental structure of the area;
- Use transportation routes, facilities, and service to accommodate travel demand and to facilitate the orderly growth of urban areas within the context of the General Plan;
- Provide for a more coordinated rail, bus, pedestrian, and bicycle system that is capable of shaping desirable growth patterns, serving the present population and employment centers and providing for convenient ease of transfer between transit and other modes;
- Improve transportation efficiency so as to minimize costs to users and to reduce transportation as a cost element in the production of goods and services;
- Provide safe transportation systems; and
- Encourage non-motorized transportation forms to support health and recreation objectives and to provide visual contrast to vehicular movement.

5. COMMUNITY FACILITIES POLICY

Community facilities policies deal with such services as education, cultural and recreational opportunities, health care, and public safety. Community facilities policies include the following:

- Coordinate the timing of private development with the provision of adequate public facilities including schools, libraries, and fire and police protection;
- Make public investments in community facilities in the most efficient manner to ensure compact, orderly, urban development and maximum service;
- Protect the County's investment in public facilities by funding public services that efficiently use building capacities and by providing adequate funds for ongoing renovation and maintenance;
- Provide human service, recreational, and cultural facilities that are conveniently located and responsive to the diverse needs and preferences of County residents; and
- Provide equal opportunity for quality public education in all parts of the County and increase higher educational opportunities, especially through programs that respond to the

needs of our growing population of scientific and technical employers.

The County's community facilities policies are evident in the activities and programs of several County agencies, including Montgomery County Public Schools, the Department of Police, the Department of Fire and Rescue Services, the Department of Recreation, and the Department of Public Libraries. These community facilities policies include:

- Improve the academic achievement of all students;
- Improve students' abilities to exercise responsibility for independent learning, be responsible citizens, and become effective group members;
- Protect life and property, preserve peace and order, prevent and detect crime, enforce laws and ordinances, arrest violators, and promote safe and efficient use of public thoroughfares;
- Prevent fires, minimize the adverse effects of fire and natural man-made disasters, and ensure timely response of emergency medical services;
- Provide and maintain outstanding recreation facilities and services in the County;
- Offer the opportunity to participate in leisure activities to County residents of all ages and skill levels; and
- Acquire, organize, provide access, and offer guidance to a wide variety of information, materials, and services which help to fulfill the intellectual, educational, social, cultural, community, information, and recreation needs of all people in the County.

6. NATURAL RESOURCES POLICY

Natural resources policies provide for the conservation, protection, development, and use of natural resources, including air, water, forests, soils, rivers, streams, lakes, wildlife, energy, and minerals. General policies include the following:

- Provide an aesthetic and healthful environment for present and future generations;
- Preserve and protect the County's open space and parklands;
- Coordinate the timing of private development with the provision of sewerage and water service and other needed utilities;
- Ensure that agriculture in the County becomes or continues as a viable land use;

- Protect the natural environment from the consequences of growth by regulating activities which might damage soils, streams, water supply, air quality, plants, and wildlife, and by preserving agricultural and open space; and
- Further energy efficiency and promote cost-effective energy use throughout all segments of the community while maintaining efforts to meet environmental goals and guidelines.

7. SOCIAL POLICY

Social policies are those which affect health and welfare activities. Other related activities, such as educational, cultural, recreational, and public safety, are addressed under the community facilities section.

The social policies of the County are not included in the General Plan, but can be found in various other documents produced by state and local agencies. These include the State Health Plan, the Health Systems and Annual Implementation Plan, the Annual Area Plan on Aging, the Action Plan for the Mentally Retarded/Developmentally Disabled, and the Action Plan for the Chronically Mentally Ill.

The County's social policies are evident in the activities and programs of several County agencies, including the Department of Health, the Department of Social Services, the Department of Family Resources, the Office of Human Relations, the Department of Addiction, Victim, and Mental Health Services, as well as other agencies and organizations such as the Community Action Board, the Commission on Children and Youth, the Commission on Handicapped Individuals, the Mental Health Advisory Committee, the Drug Abuse Advisory Council, the Alcoholism Advisory Council, and the Advisory Board on Victims and their Families.

8. FISCAL POLICY

Fiscal policies affect the ability of the County to provide necessary facilities and services in a timely manner. The fiscal policy of the County as summarized from budget documents includes the following:

- Balance the budget annually, including some amount of budgeted surplus each year;
- Take no fiscal action that would be detrimental to the high credit ratings which the County now enjoys in national bond markets;
- Increase the use of current revenues to finance capital projects, if necessary, to avoid excessive bond ratios;
- Use revenue bonds to finance capital for self-sustaining governmental operations;

- Charge user fees for public services where feasible;
- Fund in a fully appropriate way all the facilities, programs, and services which the County has made a commitment to provide;
- Control costs through prudent management;
- Decrease dependence on the property tax by implementing minor taxes and other revenue sources and reducing tax rates;
- Keep the increase in the average tax bill below the rate of inflation; and
- Build the assessable tax base through balanced growth in private sector employment and housing development.

Chapter 3

FY 93 Annual Growth Policy Issues

III. FY94 ANNUAL GROWTH POLICY ISSUES

The County Council, in adopting the FY93 Annual Growth Policy (AGP), asked the Planning Board and the Executive to address seven issues for the FY94 AGP. This section discusses the status of this work to date on the following items:

- (1) Analysis of the Pipeline with alternative methods for more closely tying the provision of public facilities to the actual pace of development;
- (2) Follow-up on proposed North Bethesda Metrorail Station Policy Areas;
- (3) Germantown Town Center Policy Area - recommended course of action to meet the Council's goal of full buildout of the town center at an acceptable level of congestion;
- (4) Findings of the Traffic Mitigation Issues Group;
- (5) Re-evaluating methodologies used to determine the Adequacy of Transportation Facilities, including studying how or whether the level of service (LOS) on freeways should be included in the calculation of staging ceilings, options for allowing LOS categories to be more sensitive to non-automobile modes of travel, and a review of the critical lane volume standards for Local Area Transportation Review;
- (6) Review of issues related to the methodology used to determine the Adequacy of Public School Capacity for annual growth policy purposes; and
- (7) Continued study of potential changes to the Annual Growth Policy process, including issues raised by the November 1991 consultant report as well as other possible structural changes related to growth management.

1. PIPELINE ANALYSIS

A. STATEMENT OF ISSUE

According to the FY 1993 AGP resolution, the Planning Board is to "analyze alternative assumptions about the absorption of the pipeline when evaluating adequate public facilities. Among other relevant issues, consideration should be given to a change in the law relating to time limits on the validity of an adequate public facility determination, or otherwise discounting the pipeline in consideration of growth forecasts for APFO analysis."

The adopted FY93 Annual Growth Policy shows ten policy areas with inadequate roadway level of service (LOS) for jobs and twelve policy areas with inadequate roadway level of service for housing. The LOS is determined by calculating the traffic impacts of existing and approved development on the current and programmed (first four years) transportation network. In policy areas where the LOS is inadequate, the Adequate Public Facilities Ordinance enjoins the Planning Board from approving further development.

Due to current market conditions, the actual pace of development is dwarfed by the size of the pipeline. As a result, a substantial fraction of the development that is now being counted against LOS will not occur for many years. There is concern that this is causing a "paper moratorium" that is artificially constraining new subdivision approvals.

The challenge is to find a mechanism that more closely ties the actual pace of development with the provision of transportation facilities, so that the County's ability to approve desired development is not held hostage to development projects that are not occurring. At the same time, the mechanism should contain safeguards so that, should the economy improve more rapidly than now foreseen, the County does not find itself attempting to catch up to development it assumed would not occur until much later.

B. BACKGROUND AND APPROACH

In Spring of 1991, the then-Office of Planning Policies, with the assistance of the Planning Department, prepared a short pipeline analysis. The objective was to determine if there were a large number of inactive projects in the pipeline. The concern was that inactive projects were keeping other projects from moving forward. The results of the analysis indicated that the few inactive projects in the pipeline accounted for only a tiny percentage of the jobs and housing pipeline. In adopting the FY92 AGP, the County Council made no change in the way the pipeline was handled.

This analysis will begin with an update of the previous analysis, including an overall look at the size and age of projects in the commercial pipeline, as well as their types, locations, and activity

status. Special scrutiny will be given to the largest (over 500 jobs) projects in the pipeline, as well as those of moderate size (100-500 jobs). Emphasis will also be placed on those projects approved more than 36 months ago, especially those which have had no completion activity since approval.

To provide perspective regarding the likely absorption rate of the jobs pipeline, comparison to the Research Division's ten-year intermediate jobs forecast will be made. A similar approach will then be applied to the residential pipeline.

C. COMMERCIAL PIPELINE ANALYSIS

The commercial pipeline data used for this analysis includes all approvals through September 24, 1992. It also includes all completions up through the end of 1991. Completions since January 1, 1991 are still listed in the pipeline.

1. Gross Numbers

As of September 24, 1992, there were 120,696 jobs remaining in the non-residential pipeline. Completions equivalent to 5,833 jobs occurred in 1991. If this rate continued, the current jobs pipeline would not be absorbed for almost 21 years.

2. General Land Use Type

Expressed in square feet, the September 1992 pipeline has 35,035,609 square feet remaining to be constructed. Of this 80.4 percent is office, 7.1 percent is retail, 7.9 percent is industrial, and 1.9 percent warehouse. Just over 2.1 million square feet was completed in 1991. At this rate, the current pipeline will not be absorbed for over 16 years. Absorption measured in jobs was slower in 1991 than absorption measured in square feet because a substantial fraction of the commercial pipeline constructed was warehouse space, which has a smaller number of jobs per square foot than other kinds of space.

3. Age of the Pipeline

Expressed as jobs, the bulk of the pipeline (54.7 percent, or 66,103 jobs) was approved during the 1989-1991 period. This means that at the time of the pipeline's last update for completions, the majority of projects were less than 36 months old. Of those remaining, 35.7 percent were approved during the 1985-1988 period and 9.6% were approved in 1984 or before.

- a. **Projects Older than 36 Months:** 32.3 percent of the older projects are in the cities of Rockville and Gaithersburg. In the rest of the County, the number of projects older than 36 months is 112, of which

41 have more than 100 jobs. The 112 projects total 11.1 million square feet, or 37,180 jobs.

Of the 112 projects, 9 are basically complete, with most of the activity occurring in 1991. Fifty-one of the projects have had at least some completion activity -- of the 12.4 million square feet approved for these projects, about half (6.5 million square feet, 21,188 jobs) remains to be constructed.

- b. **Projects Older than 36 Months With No Completion Activity:** Fifty-two of the projects over 36 months had no completion activity as of the end of 1991. These projects account for 15,992 jobs, or 4.6 million square feet of space. Three projects account for 60% of these jobs. The first two are active, and are either under construction now or were completed during 1992. These include the City Place and NOAA projects in Silver Spring, which together account for 3,383 jobs. The largest project by far in the unbuilt pipeline of projects older than 36 months (exclusive of projects within the municipalities) is the Silver Triangle project, accounting for 6,146 jobs.

4. Largest Projects in the Pipeline

The largest 20 projects account for 58.5 percent of the square footage and 61.1 percent of the jobs in the non-residential pipeline. These projects represent a pipeline of 20.5 million square feet of space and 73,919 jobs. Four of the twenty largest projects -- representing 15,557 jobs -- are located in the cities of Gaithersburg and Rockville.

- a. **Projects Over 500 Jobs (Outside of the Municipalities):** There are 38 projects outside of the municipalities which create more than 500 jobs. Of these, 20 are 36 months old or less. These newer projects represent a total of 48,220 jobs.

Eighteen projects are older than 36 months, representing 30,431 jobs. Taken as a whole, these older projects are about 26 percent complete. Only four of the eighteen projects have had little or no completion activity.

The four large projects older than 3 years that have seen little or no completions are:

PA	Year	Description	Size, type	Jobs
SS CBD	1988	Silver Triangle	1.8M SF office	6,178
GTWN W	1987	G West/APFO Exempt	335,000 SF office	1,340
B-CBD	1987	Lorenz Bldg.	279,598 SF office	1,137
GTWN W	1985	Churchill Far Nth Vlg.	200,000 SF office	800

- b. **Projects Between 100 and 500 Jobs (Outside of the Municipalities):**
There is a total of 68 projects in the pipeline creating 100-500 jobs. Collectively, the projects total 6.7 million square feet of approved space and 13,721 approved jobs. As of the end of January 1991, 2.3 million square feet (33.8 percent) had been completed, leaving 4.4 million square feet in the pipeline.

Fifteen of these projects are in the cities of Gaithersburg and Rockville. The 53 other County projects total 3.3 million square feet of unbuilt space, representing 9,334 jobs.

Of those 54 County projects outside of the municipalities that create 100-500 jobs, 22 are older than 36 months. They account for 3.2 million square feet of approved space, of which a little more than half (1.7 million square feet, 4,872 jobs) remains to be constructed.

Ten of the older-than-3-years projects have seen no activity since approval. Together they account for 644,544 square feet and 2,135 jobs. They are:

PA	Year	Description	Size, type	Jobs
GTWN-W	1988	Churchill Townsector 2	62,099 SF Office	248
SS/TP	1988	Woodside	50,291 SF Retail	126
GTWN-W	1979	Marriott Courtyard	105,000 SF Other	210
N-BETH	1986	SHA Building	60,000 SF Office	267
B-CC	1986	Sumner	46,000 SF Retail	115
SS/TP	1985	Spring Village	79,105 SF Office	351
OLNEY	1988	Helen Denit Property	92,000 SF Office	368
N-POT	1988	Safeway/Other Retail	58,139 SF Retail	145
GTWN-W	1982	Germantown Ind. Ctr.	45,800 SF Office	131
N-BETH	1982	Montrose Ind. Park	46,200 SF Office	174

5. Comparison of Jobs Pipeline to Jobs Forecast

Overall, the County's jobs pipeline of 120,696 would take 10.2 years to absorb, according to the Research Division's 10-year intermediate forecast for job growth rates. However, in individual policy areas, both the size of the pipeline and the rate of job growth varies widely. As a result, the forecasted number of years a policy area will need to absorb its jobs pipeline varies widely as well. The number of years to absorb each policy area's pipeline, at forecasted job growth rates, are:

Old Policy Area	Jobs in Pipeline	10-Year Job Growth Forecast	Years to Absorb Pipeline
Aspen Hill	14	660	0.2
Bethesda	3,618	4,420	8.2
Bethesda CBD	1,609	7,010	2.3
Cloverly*	30	90	3.3
Damascus	294	190	15.5
Fairland/White Oak*	6,530	6,360	10.3
Gaithersburg East*	9,629	9,510	10.1
Gaithersburg West*	21,840	19,680	11.1
Germantown East*	15,004	8,300	18.1
Germantown West*	12,132	6,760	17.9
Kensington/Wheaton	311	3,190	1.0
North Bethesda*	11,584	11,250	10.3
Olney*	944	780	12.1
Potomac	123	980	1.3
Rockville*	20,712	20,510	10.1
Silver Spring CBD	10,584	12,190	8.7
Silver Spg/Takoma Pk	905	1,840	4.9
Rural Area	4,833	4,280	11.3

Note: The 10-year jobs forecast is used because it most closely approximates the expected time period for buildout of the jobs pipeline. Because jobs forecasts are by old policy area (prior to restructuring), the pipeline analysis here is sorted by old policy area. The asterisks indicate old policy areas that would likely be in moratorium now for jobs, or which encompass new policy areas that are in moratorium for jobs. Job forecasts will be revised for new policy areas during the Metropolitan Washington Council of Governments Round V Cooperative Forecast process this winter.

6. Jobs Pipeline/Forecast Comparison for Policy Areas in Moratorium

Because non-residential development can currently be approved in those policy areas not now in a moratorium for subdivisions creating jobs, this part of the analysis focuses on the pipeline in those policy areas that are currently in moratorium.

Because the jobs forecasts are by former policy area, this stage of the pipeline analysis will also be by former policy area. It was necessary to make

some assumptions about which of the old policy areas would be in moratorium at this time. Despite the use of the old policy areas, the following provides insight regarding pipeline projects reserving capacity in policy areas now in moratorium. The following table provides some characteristics of the jobs pipeline in old policy areas that would likely be in moratorium for jobs:

Old Policy Area	Projects Less Than 36 Months Old (Jobs)	Projects More Than 36 Months Old (Active)	Projects More Than 36 Months Old (Inactive)
Cloverly	22	0	8
Fairland/White Oak	209	5	6,316
Gaithersburg East	6,497	2,151	981
Gaithersburg West	8,277	13,078	485
Germantown East	14,902	20	82
Germantown West	6,366	2,947	2,821
North Bethesda	9,583	1,537	464
Olney	368	96	480
Rockville	10,838	947	9,666

Note: Here, "Active" means there has been some completion recorded for this project since its approval; "Inactive" means there has been no completion activity since its approval.

The following paragraphs explain in greater detail the jobs pipeline in policy areas in moratorium for jobs.

- a. **Cloverly:** The Cloverly pipeline contains 30 jobs. The Research Division's 10-year job forecast for Cloverly is 90 jobs, so it is expected to take 3.3 years for the area's pipeline to be absorbed. Two projects, approved in 1986 and 1987, have yet to move forward. They include a 1,000 square foot retail project and an Islamic center.
- b. **Fairland/White Oak:** The Fairland/White Oak pipeline contains 6,530 jobs and at forecasted job growth rates, the area will need 10.3 years to absorb its pipeline. Projects older than 36 months account for 3.1 million square feet or 6,361 jobs. The largest project over 36 months old is the WestFarm Technology Park, which as of December 1991 had completed 329,000 of its 1.3 million square foot total. The second largest project is the WestFarm Industrial Park, which accounts for 1,383 jobs in the pipeline. About 140,000 square feet of this project has been built, with about 345,000 square feet to go.

There are 3 projects older than 36 months which have not moved forward at all since their approval. They account for just 11,300 square feet of space, or 5 jobs. Projects older than 36 months that have seen some completion activity since approval account for 1.7 million square, or 6,316 jobs. A majority of these projects are more than 50 percent complete.

- c. **Gaithersburg East:** The Gaithersburg East pipeline contains 9,629 jobs and at forecasted job growth rates, the area will need 10.1 years to absorb its pipeline. Projects older than 36 months account for 1.1 million square feet or 3,132 jobs. The largest project over 36 months old is a 570,000 square foot office project in the Montgomery County Airpark; it is about 32 percent complete.

There are 10 projects older than 36 months which have not moved forward at all since their approval. They account for 295,000 square feet of space, or 981 jobs. Another 10 projects are also older than 36 months, but each has seen some completion activity since approval. These projects account for 811,000 square feet, or 2,101 jobs. On average, they are about one-half complete.

- d. **Gaithersburg West:** The Gaithersburg West pipeline contains 21,840 jobs and at forecasted job growth rates, the area will need 11.1 years to absorb its pipeline. Projects older than 36 months account for 4.0 million square feet or 13,563 jobs. The largest project over 36 months old is Washingtonian Phase I, which as of December 1991 had completed 524,000 of its 1.8 million square foot total.

There are 5 projects older than 36 months which have not moved forward at all since their approval. They account for 168,000 square feet of space, or 485 jobs. Projects older than 36 months that have seen some completion activity since approval account for 3.8 million square feet, or 13,078 jobs. On average, these projects are a bit more than one-half complete.

- e. **Germantown East:** The Germantown East pipeline contains 15,004 jobs and at forecasted job growth rates, the area will need 18.1 years to absorb its pipeline. Projects older than 36 months account for just 17,824 square feet or 102 jobs. Eight out of the ten projects that are less than 36 months old were approved in 1991.

There are 3 projects older than 36 months which have not moved forward at all since their approval. They account for 12,600 square feet of space, or 82 jobs. There is one project older than 36 months that has seen some completion activity - the Crawford Plaza retail project, which had completed a little over half of its 12,300 square foot total by the end of 1991.

- f. **Germantown West:** The Germantown West pipeline contains 12,134 jobs and at forecasted job growth rates, the area will need 17.9 years to absorb its pipeline. Projects older than 36 months account for 1.7 million square feet or 5,768 jobs. The largest project over 36 months old is a 604,000 square foot office project approved in 1982, which as of December 1991 had completed 157,514 of its total.

There are 9 projects older than 36 months which have not moved forward at all since their approval. They account for 806,718 square feet of space, or 2,821 jobs. Projects older than 36 months that have seen some

completion activity since approval account for 955,700 square feet, or 2,947 jobs. Only two of these projects are more than one-half complete.

- g. **North Bethesda:** The North Bethesda pipeline contains 11,584 jobs and at forecasted job growth rates, the area will need 10.3 years to absorb its pipeline. Projects older than 36 months account for 460,980 square feet or 2,001 jobs. The largest project over 36 months old is an office project on the Wilgus tract, which as of December 1991 had completed just 3,120 of its 165,000 square foot total.

There are 3 projects older than 36 months which have not moved forward at all since their approval. They account for 115,200 square feet of space, or 464 jobs. Besides the Wilgus tract, there is one other project older than 36 months that has seen some completion activity since approval. It is a 400,000 square foot office project in Rock Spring Park that is about one-half complete.

- h. **Olney:** The Olney pipeline contains 944 jobs and at forecasted job growth rates, the area will need 12.1 years to absorb its pipeline. Projects older than 36 months account for 148,666 square feet or 576 jobs. The largest project over 36 months old is an office project on the Helen Denit property, which as of December 1991 had completed none of its 92,000 square foot total.

In total, there are 4 projects older than 36 months which have not moved forward at all since their approval. They account for 116,000 square feet of space, or 480 jobs. Projects older than 36 months that have seen some completion activity since approval account for 32,666 square feet, or 96 jobs. Both of these projects are more than 75 percent complete.

- i. **Rockville:** The Rockville pipeline contains 20,712 jobs and at forecasted job growth rates, the area will need 10.1 years to absorb its pipeline. Projects older than 36 months account for 2.6 million square feet or 9,874 jobs. The largest project over 36 months old is Westmont/Tower Dawson, which as of December 1991 had completed none of its 2.0 million square foot total.

There are 8 projects older than 36 months which have not moved forward at all since their approval. They account for 2.3 million square feet of space, or 9,666 jobs. Projects older than 36 months that have seen some completion activity since approval account for 277,702 square feet, or 947 jobs. All of these projects are more than one-half complete.

7. Effect of Removal of Older Projects from the Pipeline

This section demonstrates the effect on the net remaining capacity for jobs of the removal of certain older projects from the pipeline. The number of jobs remaining in the pipeline is calculated for four types of projects: those that have been in the pipeline 10 years or more with no completion activity, those that have been in the pipeline 10 years or more with some completion activity; those that have been in the pipeline between 7 and 9 years with no completion

activity; and those that have been in the pipeline between 7 and 9 years with some completion activity. These are shown by current policy area and compared with the FY 94 draft remaining capacity.

New Policy Area	Jobs pre '83 (No Comp)	Jobs pre '83 (Some Comp)	Jobs 83-85 (No Comp)	Jobs 83-85 (Some Comp)	FY94 Draft Net Remaining Capacity
Bethesda CBD	0	0	1,141	0	305
Bethesda/Ch. Ch.	228	0	73	0	7,231
Derwood/Needwood	0	0	0	204	-2,395
Fairland/White Oak	0	5,096	0	331	-9,739
Germantown West	341	271	0	0	-1,490
Germantown Town Ctr	0	1,786	7	151	0
Kensington/Wheaton	0	0	67	0	3,963
Mont. Village/Airpark	50	1,176	18	322	-5,266
North Bethesda	916	0	0	818	-7,625
R&D Village	10	0	0	0	-2,857
Silver Spring/Takoma Park	67	17	351	0	637

Note: Policy areas not appearing in the above chart do not have non-residential projects in the pipeline that were approved during the specified years.

The removal of projects older than 10 years brings one policy area, Germantown Town Center, out of moratorium for jobs. The removal would also substantially lessen the capacity deficits in Fairland/Oak, Montgomery Village/Airpark, and to a lesser extent, Germantown West.

D. RESIDENTIAL PIPELINE ANALYSIS

The residential pipeline data used for this analysis includes all approvals through September 24, 1992. It also includes all completions up through the end of 1991.

1. Gross Numbers

As of September 24, 1992, there were 34,597 housing units remaining in the residential pipeline. Just over 3,300 of these are located in the cities of Gaithersburg and Rockville. Completions of 5,185 units occurred in 1991. At this rate, the current residential pipeline will be absorbed in about 6 years.

2. Housing Types - Approved and Constructed

There were 914 housing projects remaining in the pipeline on September 24, 1992. At approval, these projects consisted of 16,738 single family homes, 12,558 townhomes, and 22,100 multifamily units. Of that 51,397 total, 14,502

units were completed in 1990 or earlier. Another 5,185 were completed in 1991, leaving 33,597 housing units in the pipeline.

3. Age of the Pipeline

The bulk of the current residential pipeline (21,239 units, or 67 percent) was approved during the 1989-1991 period. This means that at the time of the pipeline's last update for completions, the majority of projects were less than 36 months old. Of those units remaining in the pipeline, about 20 percent were approved in 1987 or 1988, and the rest in 1986 or before. The following table shows, by year approved, the number of projects, the number of units approved by type, the number completed in 1991, and the number remaining in the pipeline. Completions are current as of the end of 1991.

Year Approved	# of Projects	SF-Det Approved	THome Approved	Multi Approved	Comp'd 1991	Remain ing
1992	76	530	69	368	NA	967
1991	126	1,898	466	3,459	85	5,735
1990	156	1,940	659	3,224	694	5,104
1989	198	4,865	2,430	3,969	573	9,442
1988	157	1,686	1,128	4,199	1,500	3,965
1987	86	2,270	1,279	213	492	2,194
thru 1986	115	3,549	6,527	6,673	1,837	4,408
	-----	-----	-----	-----	-----	-----
Total:	914	16,738	12,558	22,100	5,281	31,806

- a. **Projects Older than 36 Months:** There are 358 projects approved prior to 1989 in the residential pipeline. At the time of their approval, they totalled 27,524 units. Of these, 13,128 were completed prior to 1991 and 3,829 were completed in 1991, leaving 10,567 remaining in the pipeline. This represents one-third of the remaining pipeline.

The municipalities account for a small percentage of the pipeline older than 36 months. Projects in the rest of the County, at approval, accounted for 6,116 single family homes, 8,115 townhomes, and 10,500 multifamily units. Of these, 13,549 were constructed prior to 1991. Another 3,667 were constructed in 1991, leaving 9,945 remaining in the pipeline.

- b. **Projects Older than 36 Months With No Completion Activity:** Outside of the municipalities, there are 133 projects older than 36 months that have seen no completion activity through 1991. They represent 1,080 single family homes, 226 townhomes, and 1,555 multifamily units. Of these 2,861 units, 84 percent is contained in the largest eighteen projects shown in the table on the following page.

**Projects Older than 36 Months With
No Completion Activity**

Policy Area	Year	Single Family	Town House	Multi Family	Total Units	Project Name/Location
AH	1988			600	600	Leisure World
AH	1988			359	359	Leisure World
Olney	1988			280	280	James Creek
MV/AP	1987	202			202	Mont'y Vlg Area 2A
B CBD	1985			200	200	Edgemoor
Olney	1988	87	68		155	Christie Property
F/WO	1988			117	117	Liberty Grove
N Pot	1988	66	42		108	Conklin-Ward Prop.
Potomac	1987	32	54		86	River Falls
Rural	1988	79			79	Merry Go Round
F/WO	1988	49			49	Burtonsville
B/CC	1988	48			48	River Oaks
B/CC	1988	44			44	Rannoch Rd. Property
N Beth	1987	40			40	Ward Property
K/W	1987		31		31	Arcola Ave. Property
Potomac	1988	31			31	Persimmon Tree
F/WO	1985		24		24	Silverwood
Rural	1988	21			21	Elmhirst Property

- c. **Projects Older than 36 Months With Some Completion Activity:** Outside of the municipalities, there are 149 projects older than 36 months that have been partially built out since approval. At approval, these projects represented 4,548 single family homes, 5,116 townhomes, and 6,443 multifamily units. Of these 16,107 units, 7,573 were completed prior to 1991 and 1,936 were completed during 1991, leaving 6,597 units remaining in the pipeline.

Projects containing more than 5 units account for 61 of the 149 projects and the bulk of the remaining pipeline. At approval, these projects totalled 15,417 units, of which 6,612 units remain to be constructed.

Projects containing more than 100 units account for 5,056 of the 7,076 units that are in partially-completed projects older than 36 months. These sixteen projects are listed in the table on the following page.

**Projects Older than 36 Months With
Some Completion Activity**

Policy Area	Year App'd	SF App'd	TH App'd	MF App'd	Total App'd	Total Remain	Project Name/Location
Gtwn W	1983	107	1375		1482	867	G'town Estates III
N Beth	1980			945	945	551	Old Georgetown Vlg
R&D	1988		362	371	733	489	Decoverly
AH	1985			600	600	430	Leisure World
MV/AP	1987	307	136		443	404	Kettler Property
Gtwn E	1987	208	216		424	331	King Property
MV/AP	1984	310	1,454		1,764	323	East Village
N Pot	1987	176	117		293	275	Copenhaver Est.
B/CC	1981				581	273	Somerset House
Olney	1986	211			211	209	Zinder Property
Potomac	1988	32	131	24	187	180	LCDR Tract
Gtwn E	1987	145	36		181	170	Green Woods
MV/AP	1987			213	213	159	Flower Hill #32
Olney	1983		148	579	727	150	Olney Town Ctr
Gtwn W	1988			396	396	144	Churchill Tn Sector
B/CC	1988		54	240	294	101	Bell Property

Moderately-sized projects (those containing between 30 and 100 units) account for 800 of the 7,076 units that are in partially-completed projects older than 36 months. These fourteen projects are listed in the following table:

Policy Area	Year App'd	SF App'd	TH App'd	MF App'd	Total App'd	Total Remain	Project Name/Location
Rural	1983	92		120	212	91	Friends Hse Retirmt
MV/AP	1987	67	194		261	84	Hadley Farms 5,6,7
F/WO	1987	139	20		159	84	Kay II Property
N Pot	1986	113	110		223	74	Etchison Property
MV/AP	1988	70	10		80	67	Goshen Clusters
Rural	1984	70			70	66	Spring Meadows
Gtwn W	1988			98	98	64	Churchill Tn Sector
D/N/W/S	1988	70	60		130	45	Moody Property
Rural	1983	80			80	40	Beane Property
MV/AP	1987		178		178	40	Flower Hill #7
F/WO	1988		16	120	136	39	Andris Property
F/WO	1982			2,032	2,032	39	Robey Rd Property
F/WO	1985		49		49	36	Barman Property
SS/TP	1986	34			34	31	Hickey & Offutt

4. Comparison of Residential Pipeline to Housing Forecast

Overall, the County's residential pipeline of 33,597 would take 5.8 years to absorb, according to the Research Division's 6-year intermediate forecast for housing growth rates. However, in individual policy areas, both the size of the pipeline and the rate of housing growth varies widely. As a result, the forecasted number of years a policy area will need to absorb its housing pipeline varies widely as well. The number of years to absorb each policy area's pipeline at forecasted housing growth rates, are:

Policy Area	Units in Pipeline	6-Year Hsg Growth Forecast	Years to Absorb Pipeline
Aspen Hill*	2,508	2,500	6.0
Bethesda/Chevy Chase	870	1,200	4.4
Bethesda CBD	224	900	1.5
Cloverly*	367	300	7.3
Damascus*	344	300	6.9
Fairland/White Oak*	1,466	2,700	3.3
Gaithersburg East*	2,705	3,400	4.8
Gaithersburg West	4,738	4,700	6.0
Germantown East	4,220	3,600	7.0
Germantown West*	2,605	2,900	5.4
Kensington/Wheaton	671	700	5.8
North Bethesda	1,110	1,700	6.3
Olney	2,421	2,300	6.3
Potomac	1,318	1,300	6.1
Rockville	1,201	1,600	4.5
Silver Spring CBD	2,199	1,300	10.1
Silver Spr/Takoma Pk	241	200	7.2
Rural	2,598	1,400	11.1

Note: The 6-year forecast is used for comparison to the residential pipeline as it more closely approximates the time period for pipeline buildout. Because housing forecasts are by old policy area, the pipeline analysis here is sorted by old policy area. The asterisks indicate old policy areas that would likely be in moratorium now for housing. Housing forecasts will be revised for new policy areas during the MWCOC Round V Cooperative Forecast process.

5. Residential Pipeline/Forecast Comparison for Policy Areas in Moratorium

Because residential development can currently be approved in those policy areas not now in a moratorium for subdivisions creating housing, this part of the analysis focuses on the pipeline in those policy areas that are currently in moratorium.

Because the housing forecasts are by former policy area, this stage of the pipeline analysis will also be by former policy area. It was necessary to make some assumptions about which of the old policy areas would be moratorium at this

time. Despite the use of the old policy areas, the following provides insight regarding pipeline projects reserving capacity in policy areas now in moratorium. The following table provides some characteristics of the residential pipeline in old policy areas likely to be in moratorium for housing:

Old Policy Area	Projects Less Than 36 Months Old	Projects More Than 36 Months Old (Active)	Projects More Than 36 Months Old (Inactive)
Aspen Hill	1,087	445	976
Cloverly	311	51	5
Damascus	377	3	4
Fairland/White Oak	1,107	208	241
Gaithersburg East	1,103	1,219	383
Germantown West	1,529	1,075	1

Total:

Note: Here, "Active" means there has been some completion recorded for this project since its approval; "Inactive" means there has been no completion activity since its approval.

The following paragraphs explain in greater detail the residential pipeline in policy areas in moratorium for housing.

- a. **Aspen Hill:** The Aspen Hill residential pipeline contains 2,508 housing units. At forecast housing growth rates, the pipeline will be absorbed in 6 years.

Projects 36 months old or less totalled 184 single family homes, 460 townhomes and 465 multifamily units at approval; thirteen of these units have been completed. The largest project is a 611-unit project at Longmead.

At approval, the projects older than 36 months that are partially completed totalled 42 single family homes and 600 multifamily units. Two hundred of these have been completed. Of the 442 units remaining in the pipeline, 430 are in a single project at Leisure World. This project was approved for 600 units in 1985 and saw 170 units completed in 1991.

Projects older than 36 months that have seen no completion activity include 17 single family homes and 959 multifamily units. All but twenty units are in two projects at Leisure World, both approved in 1988.

- b. **Cloverly:** The Cloverly residential pipeline contains 311 housing units. At forecast housing growth rates, the pipeline will be absorbed in 7.3 years.

Projects 36 months old or less totalled 90 single family homes, 5 townhomes and 220 multifamily units at approval; 4 of these units have been completed. The largest project is a 220 multifamily project at Strawbridge Run approved in 1990.

At approval, the projects older than 36 months that are partially completed totalled 479 single family homes and 88 townhomes. Just 51 units now remain in the pipeline. Projects older than 36 months that have seen no completion activity total five units.

- c. **Damascus:** The Damascus residential pipeline contains 344 housing units. At forecast housing growth rates, the pipeline will be absorbed in 6.9 years.

Projects 36 months old or less represent 90 single family homes, 55 townhomes and 225 multifamily units. The largest project is a 159-unit townhome and multifamily project at Magruder Village approved in 1989.

There is one project in Damascus older than 36 months that is not complete. This consists of the three remaining units in a 25-unit single family project approved in 1982. Projects older than 36 months that have seen no completion activity total 4 units in two projects.

- d. **Fairland/White Oak:** The Fairland/White Oak residential pipeline contains 1,030 housing units. At forecast housing growth rates, the pipeline will be absorbed in 3.3 years.

Projects 36 months old or less totalled 456 single family homes, 231 townhomes and 343 multifamily units at approval; 17 have been completed. The largest project is a 239-unit multifamily project approved in 1989.

At approval, the projects older than 36 months that are partially completed totalled 382 single family homes, 670 townhomes, and 2,485 multifamily units. All but 208 units have been completed. The largest remaining project is the 84 units remaining in a 159-unit project approved in 1987. This project is active; 17 units were completed in 1991.

Projects older than 36 months that have seen no completion activity include 100 single family homes, 24 townhomes, and 117 multifamily units. All of the uncompleted multifamily units are in one project, which was approved in 1988.

- e. **Gaithersburg East:** The Gaithersburg East residential pipeline contains 2,705 housing units. At forecast housing growth rates, the pipeline will be absorbed in 4.8 years.

Projects 36 months old or less totalled 441 single family homes, 360 townhomes and 864 multifamily units at approval; 562 of these units have been completed. The largest project is a 412-unit multifamily project approved in 1990 and which saw 185 completions in 1991.

At approval, the projects older than 36 months that are partially completed totalled 1,026 single family homes, 2,332 townhomes and 213 multifamily units. Of these, 1,217 units remain in the pipeline. The largest project has 307 single family homes and 136 townhomes left to complete.

Projects older than 36 months that have seen no completion activity include 272 single family homes, 14 townhomes, and 97 multifamily units. Two hundred and two of the 383 remaining units are in a single family home project in Montgomery Village.

- f. **Germantown West:** The Germantown West residential pipeline contains 2,605 housing units. At forecast housing growth rates, the pipeline will be absorbed in 5.4 years.

Projects 36 months old or less totalled 214 single family homes, 178 townhomes and 1,169 multifamily units at approval; 32 of these units have been completed. The largest project is a 881-unit multifamily project at Cloverleaf Center, approved in 1991.

At approval, the projects older than 36 months that are partially completed totalled 107 single family homes, 2,980 townhomes, and 1,610 multifamily units. Over 5,600 of them have been completed; 771 of them in 1991. Of the 1,075 units remaining in the pipeline, 837 are the remaining units in a 1,476-unit project in Germantown Estates. There is just one project older than 36 months that has seen no completion activity; the project consists of one single family home approved in 1987.

6. Effect of Removal of Older Projects from the Pipeline

This section demonstrates the effect on the net remaining capacity for housing of the removal of certain older projects from the pipeline. The number of housing units remaining in the pipeline is calculated for two types of projects: those that have been in the pipeline 10 years or more, and those that have been in the pipeline between 7 and 9 years. The vast majority of projects in both categories have seen at least some completion activity. These are shown in the table on the following page by current policy area and are compared with the FY 94 draft remaining housing capacity.

**Housing Units Approved Before 1983 and During 1983 to 1985
Compared to FY94 Draft Net Remaining Capacity**

New Policy Area	Housing Units pre '83	Housing Units 83-85	FY94 Draft Net Remaining Capacity
Aspen Hill	0	430	-5,145
Bethesda CBD	0	223	500
Bethesda/Ch. Ch.	277	2	2,419
Cloverly	17	29	-637
Damascus	3	0	-968
Derwood/Needwood	1	0	1,370
Fairland/White Oak	39	80	-2,205
Germantown East	10	0	797
Germantown West	0	867	-929
Kensington/Wheaton	3	2	1,849
Mont.Village/Airpark	0	423	-4,222
North Bethesda	551	0	2,824
Olney	0	637	296
Potomac	27	4	1,642
Rural areas	2	308	NA

Note: Policy areas not appearing in the above chart do not have residential projects in the pipeline that were approved during the specified years.

The removal of projects older than 7 years does not bring any policy areas out of moratorium for housing. The removal would substantially lessen the capacity deficit in Germantown West.

E. DEVELOPER-CREATED CAPACITY

A distinction can be made between projects in the pipeline which are reserving publicly-funded capacity and those which created capacity through developer-funded facilities or traffic mitigation programs. Publicly-funded capacity may be viewed as a resource that can be withdrawn from those unable to use it and then apportioned to those who can. Alternatively, privately-funded capacity is viewed by some as "belonging" to the developer who paid for it, whether he is able to use it or not.

An initial review of approved projects indicates that a very small percentage created 100 percent of the capacity needed for their development. For example, while the Marriott/Milestone project created capacity by agreeing to certain transportation improvements, they are still dependent on the County to program other facilities before sufficient capacity is created to accommodate the project.

In the following section, a number of alternative strategies for addressing the size of the pipeline are discussed, with the goal of maximizing the County's

return on investment in capacity-generating public facilities. As these alternatives are debated, it may be appropriate to keep the distinction between publicly-funded and privately-funded capacity in mind. An option which treats publicly-funded capacity differently than privately-funded capacity will have to take into account that the great majority of privately-funded capacity is tied to, and dependent on, publicly-funded capacity.

There was insufficient time to prepare a detailed inventory of privately-funded capacity in time for inclusion in the FY94 Staff Draft AGP. However, Planning Staff expects to be able to provide additional analysis on this subject prior to Planning Board transmittal of the FY94 Final Draft AGP.

F. ALTERNATIVES FOR ADDRESSING THE SIZE OF THE PIPELINE

Some of the alternative methods for addressing the size of the pipeline are:

- **Forecast-dependent discount.** While staging ceilings are determined based on facilities funded in the first four years of the County and State capital programs, the number of jobs in the pipeline is much larger than the 4-year jobs forecast. As long as this is true, the County is reserving some publicly-funded capacity for development that won't be built for some time. A discount based on this concept might apply a straight percentage for the county as a whole, or vary the discount by policy area. In calculating the discount, the following would have to be taken into account:
 - a. the probability that the CIP projects scheduled for completion in the first four years of the CIP actually are completed;
 - b. the probability that the forecast accurately reflects (within a certain tolerance) what will be developed during that time period;
 - c. If additional development is approved, the amount of additional development that will occur within the four-year period, over and above the market forecast (additional permitted development may have the effect of wholly or partially supplanting, rather than simply adding to, the portion of the current pipeline that is developed within four years);
 - d. The likelihood that, as times improve and the forecast gets larger and the pace of development gets faster, the County will find itself struggling to catch up with growth. Everything that has been approved may develop.

A discount could be calculated for policy areas in moratorium that have a jobs pipeline that is not forecasted to be built out during the four-year period of counted public facilities programming.

- Reducing the life of an adequate public facilities approval. There are alternatives to the current 12 year life of an adequate public facilities approval that may provide more flexibility while helping to address the "paper moratorium" issue. One option is to make the life of an approval flexible and based on the size and type of the development, so that larger projects have sufficient time to develop, while small projects would be encouraged to develop within a shorter time frame. A second option would be a performance-based approval; i.e., after four years, the approval expires if there has been no activity for two consecutive years.

Another option would be to set stricter time limits only on that development that is approved over and above the ceiling. This option would be combined with the forecast discount method discussed above.

In this example, suppose a policy area is in moratorium for jobs and the forecast for jobs is well below the pipeline. A discount has been applied to the pipeline, so that the Planning Board is allowed to exceed the ceiling by X jobs. A project at the beginning of the queue would have the option of accepting a finding of adequate public facilities with a shorter time limit than 12 years or waiting for a 12-year limit finding.

- Count public facilities programmed for completion beyond the fourth year. Central to the pipeline issue is the disparity between the four-year time period within which capital projects must be constructed and the twelve years within which approved development may be constructed. As discussed above, one option is to shorten the life of an approval. Lengthening the time period for which capital facilities can be programmed and still counted for the APF test is another.

Counting additional years of the Capital Improvements Program would allow the County additional flexibility in providing capital facilities more in concert with the pace of new development. As the pace of development increases, and the number of years of pipeline decreases, so too could the number of years of capital programming counted toward APF shrink. As long as the projects programmed for completion beyond the four-year period move forward on schedule, this option would work well.

In practice, however, longer term capital programming is difficult because priorities can change in a few years. Projects that were counted for APF may not, in the end, be implementable. As projects move closer toward construction, the scope and cost of the project can change for any number of reasons. Additionally, most of the major projects require state or federal funding, which is not predictable over several years.

- Allowing the transfer or selling of a finding of adequate public facilities. Treatment of an approval under the APFO as a commodity that can be sold or traded would provide additional flexibility to those both in and wanting to be in the pipeline. Developers of projects that are not moving forward would have a financial incentive for removing themselves from the pipeline. Developers of projects that can move forward would have the opportunity to do so.

In practical terms, a developer would be purchasing capacity, rather than "approval" per se. Each project using purchased capacity would be treated in an identical fashion as other projects for which capacity is available. A feature to this approach is that it represents an opportunity, rather than a constraint, for the development industry.

Constraints would be placed on the system so that the capacity transfer would have to remain within the same policy area and/or allow the same type of development, jobs or housing.

- **Reduce or modify level of service standards.** If the standards for Level of Service are lowered, more development could be approved. This was an initial approach taken by Broward County, Florida, to a similar problem. The result, however, was that the new projects admitted to the pipeline weren't moving any more quickly toward completion than those already in the pipeline.

If a goal of moratorium relief is to allow projects that can move forward to do so, then it may be appropriate to develop criteria about the likelihood of a project's success, although such criteria would be difficult to develop and apply. One option for helping to insure that the projects that are approved are those that can go forward involves not issuing an APF approval until the project is ready to go forward.

- **Changing the point of testing for adequate public facilities.** A number of options for changing the point in the development process where projects are subjected to the APF test have been suggested. In 1987, County Council appointed an advisory committee to review options for addressing the pipeline issue. The committee assessed six alternative APF testing procedures: test at subdivision, test at building permit, test at road permit, timed APF certificate, market adjusted staging with test at subdivision, and a revised test at subdivision. The committee recommended a revised test at subdivision, which would have allowed a portion of road capacity programmed for beyond the four-year period to be counted in setting staging ceiling in policy areas where approved subdivisions are building out slowly.
- **Special ceiling allocations for publicly-desired development.** Some localities have created "extra" capacity through one mechanism or other, but limited the use of the capacity to certain types of projects; e.g., projects that fulfill goals of the master plans. This might be similar to the special ceiling allocation for affordable housing.
- **Mechanisms for helping developers create their own capacity (or for assuring/encouraging construction of road improvements that were conditions of approval).** Development districts are one option. Another is to establish a pool of funds from which developers can borrow money to finance necessary improvements. The County Council took an initial step in this direction when it established the Local Area Transportation Review Improvement Fund in the FY93 AGP. Another option is to allow more leeway

in phasing development and improvements so that the developer can begin to receive income from the project before beginning improvements.

Planning Department staff has conducted an extensive review of other localities which make development contingent upon transportation or traffic improvements that maintain a specified level of service. The localities were contacted to determine if they are experiencing similar disparities between the pace of development and the provision of public facilities. Several are, but none are using discounting methods to address the problem. Some are considering limiting the life of an APF approval, as most do not currently limit the life of an approval at all.

Some, as mentioned, have lowered level of service standards. Some localities in Southern California are using a two-pronged approach: the locality requires developers to create 100% of the capacity needed, but the locality lends the money for the improvement to the developer. The locality obtains the money by selling bonds, using the developer's land as collateral. The bonds are paid off with increased property taxes on the development.

A number of the localities are, as Montgomery County, studying the issue now. Many others have not had an APFO for a long enough time to be overly concerned about moratoria.

G. CONCLUSION

The objective of more closely tying the provision of public facilities to the actual pace of development can inspire a wide variety of alternative solutions, each addressing some aspect of the problem.

The "pipeline question" is but one aspect of the larger moratorium issue, and therefore cannot be considered separately from several other issues addressed in this AGP. This is particularly true of issue five discussed elsewhere in this chapter. It is appropriate, therefore, to present this slate of related issues together for public testimony and further consideration before a final option or set of options is recommended for adoption by the Planning Board.

2. PROPOSED NORTH BETHESDA METRORAIL STATION POLICY AREAS

The Planning Board and staff feel evaluating policy areas at North Bethesda Metrorail stations is best done as part of developing a staging amendment to the North Bethesda Master Plan. This staging plan would identify the priority and sequence of land use and transportation improvements in North Bethesda and around the three Metrorail stations -- Grosvenor, White Flint, and Twinbrook. In concert with the analysis for the staging, appropriate AGP actions will be developed addressing the many issues related to possible new policy areas. A number of these issues are presented in the FY 94 Staff Draft AGP in Section 5 below. The discussion on these issues will be useful in formulating recommendations about appropriate measures of congestion, methods to account for transit and HOV

3. GERMANTOWN TOWN CENTER POLICY AREA

Different transportation solutions to provide staging ceiling capacity were discussed at a County Council worksession on June 18, 1992. The Council directed that additional solutions to provide all or some of the staging capacity needed to allow buildout of the Germantown Town Center be developed. This effort has been separated from the development of the FY94 AGP. A study group consisting of Council staff, MCDOT staff and M-NCPPC staff was formed to complete the work. It is anticipated that this analysis will be presented to the Germantown Advisory Group in October, 1992 and then reviewed by the Planning Board. These proposals will be presented to the Council in November of 1992.

4. TRAFFIC MITIGATION ISSUES WORKGROUP

In response to the County Council's request to review traffic mitigation programs in the County, the Planning Board held a series of worksessions and a public hearing on the subject during 1992. In the process, the Board has considered the views of the Traffic Mitigation Issues Workgroup, composed of a cross section of civic leaders, developers, traffic engineers, and attorneys who are most interested in traffic mitigation issues. The Board has subsequently scheduled worksessions on proposed administrative guidelines for traffic mitigation programs associated with subdivision applications.

The guidelines, which include a standard agreement, are intended to be used by the Planning Board, staff, other governmental reviewing agencies, property owners, and interested parties to assist in the orderly and consistent review of traffic mitigation programs in conjunction with subdivision applications that are subject to the guidelines. Other guidelines and form agreements will be prepared to assist in the review of traffic mitigation programs that may be required in conjunction with applications for project plans in the Silver Spring Transportation System Management District, site plans in I-3 zones, site plans eligible for parking credit, properties subject to "loophole closure" legislation, mandatory referrals for federal facilities, and certain special exceptions. Ultimately, staff will prepare for Planning Board approval a composite set of traffic mitigation guidelines for various types of development cases and a traffic mitigation program manual that offers guidance on selecting and operating specific programs.

5. DETERMINING ADEQUACY OF TRANSPORTATION FACILITIES - METHODOLOGY

The fifth item in the issues section of FY93 adopted Annual Growth Policy concerned Adequacy of Transportation Facilities. Specifically, the resolution states:

"The Planning Board should take the lead, with the aid of the Executive, in re-evaluating:

- a) how or whether the level of service on freeways should be included in the calculation of staging ceilings;*
- b) the desirability of increasing the number of level of service categories to be more sensitive to ridesharing, transit, and non-motorized transportation alternatives to auto travel. This effort should build upon the work prepared for the Staff Draft FY 92 AGP; and*
- c) the critical lane volume standards for Local Area Transportation Review. As part of this effort, the effect of varying the standard by policy area according to its level of service category should be examined."*

In addition, the Planning Department has identified a fourth issue concerning the treatment of High Occupancy Vehicle (HOV) facilities in the allocation of transportation staging ceilings. These issues are highly interrelated. The counting of freeways relates directly with the treatment of HOV. The tradeoff between transit and auto also concerns the HOV issue - is HOV to be considered transit, auto, or something else? Varying the Local Area Transportation Review (LATR) standard by level of service category involves the number of groups or type of tradeoff between auto and transit. An overview of these issues and the alternative methodologies considered to date is presented next and then a more detailed discussion follows.

OVERVIEW

This section will discuss at length some of the very intricate problems in setting policies for measuring and evaluating the adequacy of transportation facilities. As indicated above, these issues were identified by the County Council as items to be evaluated by the Planning Board as part of the FY 94 Annual Growth Policy.

The first issue involves the use of freeways in the Average Congestion Index used in Policy Area Review. Four options were identified, each of which has advantages and disadvantages. The first, our current system, weights freeways and local roads by the vehicle miles of travel on each road system, and treats the volume-to-capacity ratios as equivalent. The second option would not count freeways in the Average Congestion Index, so freeway improvements would only be counted to the extent they relieved traffic on local roads. The third option would weight the volume-to-capacity ratio on all links in the County based on the proportion of traffic generated in an area. This third option would account partially for "upstream/downstream" effects, and would discount for through

trips. By doing this, freeways would be a much less dominant part of the Average Congestion Index. A fourth system would switch to a delay-based user level of service (LOS). That is more in line with how individuals perceive the transportation system serving them, because the delay on their trips would be directly measured rather than the congestion all of the roadways in their work or residence policy area.

The second issue concerns the way in which auto and non-auto LOS is traded off for Policy Area Review and the setting of staging ceilings. Our current system has six groups, an alternative recommended in the Staff Draft FY 92 AGP had nine groups, which enabled the regulatory system to be more responsive to smaller increments of additional transit service. A third option would directly tradeoff improved auto and non-auto LOS for increased land use activity, eliminating the group concept altogether.

The third issue deals with LATR standards, methods, assumptions, and tradeoffs. Assumptions in LATR about the geography of analysis, the length of the peak period analyzed, and the background land use and network all can change the resultant LOS. Auto LOS can be analyzed at three different levels of analysis: the intersection approach, the total intersection, or a local area network. Two different kinds of analysis, measuring either volume or travel time are possible for setting LOS. In addition non-auto LOS measures can be added to a more comprehensive "Transportation Impact Study." These non-auto LOS measures would be traded off against auto LOS, so better transit service would enable increased land use activity. This measurement could occur at the policy area, transit station area, and/or the individual site geography.

The fourth issued was identified by staff and concerns the forthcoming HOV facilities. A number of possible options for dealing with HOV were discussed. If freeways are not directly accounted for, then accounting for HOV would not be done. The capacity can be treated as SOV capacity until HOV proves itself. Explicit average LOS standards can be set for the HOV lanes and the general purpose lanes which are sensitive to their being effective HOV operations in the short- and long term. The capacity can be ignored until HOV proves itself - The "Georgetown Branch" option. The Average Congestion Index could be weighted by person miles of travel rather than vehicle miles of travel, thereby accounting for HOV. Auto HOV can be added as a factor in Chart I, so that if an area had HOV service, it might change groups. Alternatively HOV can be considered a mode in the Total Transportation Level of Service, and the LOS on the HOV system would be weighted by the number of HOV trips. Obviously, the treatment of HOV depends upon other related decisions of freeway LOS and on the tradeoff between auto and non-auto LOS.

These issues are highly interrelated. The Planning Department awaits public testimony and comments from other branches of government before developing a package of recommendations which will address the issues posed by the County Council.

A. Level of Service on Freeways

The issue raised by the County Council was *"how or whether the level of service on freeways should be included in the calculation of staging ceilings."*

Discussed below are four basic options for counting or not counting freeways, including switching to a user-based approach where the freeways question becomes less relevant. These options include 1) the current system, 2) count only local roads, do not count freeways, 3) volume-based user LOS, and 4) travel time-based user LOS.

Counting freeways is intimately related to the issue of how to treat new or converted HOV lanes for purposes of staging ceiling. "Future HOV" lanes are currently designated on I-270, and the programmed widenings of the I-270 East Spur and I-270 between MD 118 and MD 121 are expected to be the events which convert those lanes to HOV lanes. With regard to the AGP staging ceiling analysis, HOV may provide staging ceiling capacity if freeways are counted or if other special treatment is provided for HOV, but may provide less if freeways are not counted.

1. Current System

Currently, the calculation of average LOS in policy areas bordered by or surrounding freeways includes accounting for those freeways, weighted by their vehicle miles of travel. In some areas, such as Germantown East, freeways dominate the average LOS calculation because of the amount of traffic they carry compared to local roads located in that area. This method was most recently affirmed by the Planning Board as part of the FY 92 Annual Growth Policy discussions in the fall of 1990.

The average LOS is computed as the average volume-to-capacity ratio on all road segments in a policy area weighted by the vehicle miles of travel associated with each segment. This measure works well in larger areas with many road segments and not as well in smaller areas with few road segments, such as CBDs and sector plan areas where other techniques are used. Roads shared by policy areas along boundaries, including freeways, are split between the areas in terms of both the congestion measure on the segment and the weighting by vehicle miles of travel. Table 1 shows the policy areas to which specific freeways are currently assigned and those other policy areas with which they are split for purposes of calculating average LOS.

In this section, the term "capacity" is often used and some clarification is needed. In the transportation engineering profession, capacity is a way of expressing the concept of "service volume." Service volumes represent the maximum throughput volume under safe and efficient conditions. Thus, in some parts of the roadway network, volume can exceed "capacity." What is meant when that is observed or calculated is that traffic is operating at less safe and efficient conditions than desirable - that volumes exceed the "service volumes" for which the road or intersection was designed. When volume exceeds "service volume" for an extended period of time, queues will generally form and delays will start becoming excessive.

A computational example is presented below. The system has two links, both with a capacity of 2000 vehicles per hour; the first link carries 1000 vehicles per hour and is one mile in length, the second link carries 1500 vehicles per hour and is two miles in length. The average congestion index of the two links is .68, LOS C/D.

$$\begin{aligned}
 \text{LOS} &= \frac{\text{SUM [(Vol / Cap) * VMT]}}{\text{SUM VMT}} \\
 &= \frac{(1000 / 2000) * (1.00 \times 1.0) + (1500 / 2000) * (1500 \times 2.0)}{(1000 + 3000)} \\
 &= \frac{500 + 2250}{4000} = \frac{2750}{4000} = 0.68 \quad (\text{LOS C/D})
 \end{aligned}$$

2. Count Only Local Roads, Exclude Freeways

A second alternative would only consider changes in congestion on local roads. Clearly, certain freeway improvements will change traffic congestion on local roads, and from the averaging, these changes would be counted. This is because the transportation model will still consider freeways when estimating the travel patterns. By way of example, for certain trips, MD 355 and I-270 can be considered alternate routes. When the I-270 east spur is widened, the net effect is that some trips may switch from MD 355 to the faster speeds on I-270, resulting in improved conditions on MD 355. Thus, an I-270 east spur widening would be considered to provide an improvement to local traffic conditions, which would result in adding staging ceiling capacity, even though I-270 would not be directly included in the average LOS computation.

Having a Single, Countywide Test for Freeways. This is a variation on Option 2. If freeways are not included in the average LOS calculations for Policy Area Transportation Review, a new County-wide test for freeways could be established instead. Higher volume-to-capacity ratios can be tolerated on freeways than local roads and still have acceptable speeds. A freeway operating at 30 mph is considered at capacity and at link LOS E. A local road, such as MD 355, operating at 30 mph may be at link LOS B or C and may be operating at only one-half of capacity. A new standard of acceptable freeway congestion would need to be set, presumably at an average level more congested than the current area averages. If the freeway system as a whole were deemed to fail, then those policy areas that contribute most to that freeway congestion would be shut down for development approval. The concept behind this measurement approach is that freeways act as a County-wide, if not regional, system and should not be attributed only to adjacent policy areas.

TABLE 1: ASSIGNMENT OF FREEWAYS TO SPECIFIC POLICY AREAS

Policy Area	Assigned Freeways	Policy Area with which Assigned Freeway are Split
Bethesda/Chevy Chase	I-495 Clara Barton Pkwy Cabin John Pkwy	N. Bethesda and Potomac
Fairland/White Oak	I-495	Silver Spring
Derwood/Needwood	I-370 I-270	Gaithersburg R & D Village
Gaithersburg City	I-270	
Germantown East	I-270	Germantown West
Germantown West	I-270	Germantown East
Kensington/Wheaton	I-495	Silver Spring
North Bethesda	I-270 I-270 West Spur I-495	Potomac Bethesda/Chevy Chase
Potomac	I-270 West Spur I-495 Clara Barton Pkwy	North Bethesda Bethesda/Chevy Chase
R & D Village	I-270	Derwood/Needwood
Rockville	I-270	
Silver Spring/Takoma	I-495	Fairland/White Oak and Kensington/Wheaton

3. Volume-Based User Average Level of Service

The current measure of average LOS for Policy Area Transportation Review is a weighted average of the volume-to-capacity ratio on all links in an area. The weight used is the Vehicle Miles of Travel (VMT is volume multiplied by distance) on each link. The current measure does not distinguish through trips from local trips, nor does it directly consider the impact of traffic generated in one area on other areas. The setting of staging ceilings, however, does attempt to look at "upstream-downstream" effects.

An alternate measure would consider, for each policy area, the volume-to-capacity ratio on all of the links in Montgomery County; weighted by the VMT multiplied by the proportion of trips generated in that area. For each link, the fraction of trips originating (or destined for) each policy area would be computed using the transportation model. The fraction would be unique for each link and would not be an area-wide estimate.

As a simplified numerical example, consider a two link system (all data is hypothetical). Link "A" is a one mile segment of MD 355 in North Bethesda which has 70 % of its trips generated in North Bethesda, while link "B" is a one mile segment in Bethesda that only has 25% of its trips originating in North Bethesda. Link "A" has a volume of 1000 vehicles per hour, link "B" has a volume of 1500 vehicles per hour. Both links have a capacity of 2000 vehicles per hour. The LOS for trips originating in North Bethesda would be "C" as shown in the following computations.

$$\begin{aligned} \text{LOS} &= \frac{\text{SUM} [(\text{Vol} / \text{Cap}) * (\% \text{ trips} * \text{VMT})]}{\text{SUM} (\% \text{ trips} * \text{VMT})} \\ &= \frac{(1000 / 2000) * (0.70 * 1000) + (1500 / 2000) * (0.25 * 1500)}{(0.70 * 1000) + (0.25 * 1500)} \\ &= \frac{631}{1075} = 0.59 \text{ (LOS C)} \end{aligned}$$

Because the local links dominate this hypothetical system, the LOS is very similar to the volume-to-capacity ratio on links in North Bethesda alone (0.50, a less congested value of LOS C). If this were actually applied County-wide, many areas would have a much greater variation.

The overwhelming effect of freeways on this system is muted because the fraction of trips originating in an area and using the freeways is less. The impact of traffic on neighboring areas is partially counted in that the selection of links consists of all of those in the County, not just those in a local area.

4. Travel Time Based User Average Level of Service

Similar in concept to the volume-based user average LOS, the time-based user average LOS is an approach that considers travel time rather than volume as the fundamental factor in average LOS. The percent delay between two points determines the average LOS between those points. Averaging this for all destinations reached from a single origin zone, weighted by the number of trips to each destination zone, provides a time-based average user LOS. This also accounts for upstream downstream effects or the effect of new development on neighboring areas.

As a hypothetical example, consider a three-zone system. We want to determine the average LOS for trips from a North Bethesda traffic *zone*

DESTINATION ZONE	Freeflow Time	Congested Time	Ratio of Congestion to Freeflow Time	Percent of Trips
Z 1: North Bethesda	10 min	15 min	1.5	25%
Z 2: North Bethesda	5 min	5 min	1.0	50%
Z 3: Bethesda	15 min	20 min	1.3	25%

$$\text{LOS} = (1.5 * .25) + (1.0 * .50) + (1.3 * .25) = 1.20$$

This means that, on average in this example, it takes about 20% longer to commute from the origin zone in North Bethesda in the peak hour than it does with freeflow conditions. All links between two zones would be considered in estimating the average LOS, both freeways and local roads, in proportion to their use. In order to use this measurement approach, it will be necessary to define a LOS scale associated with particular values of congested time compared to freeflow time.

Advantages

1. Current System

- Easiest to implement
- Involves no change to methods, standards, or ceilings
- Allows larger capture freeway improvements
- Can be directly measured with available data

2. Count Only Local Roads

- Second Easiest to implement
- Involves little change to current methods
- Penalizes local development less for through trips
- Can be directly measured with available data

Advantages, *continued*

3. Volume Based User Average Level of Service

- More directly discounts for through trips
- More directly accounts for upstream- downstream impacts
- Involves no change to current standards

4. Time Based User Average Level of Service

- Travel time is perceived better by users than volume
- More directly discounts for through trips
- More directly accounts for upstream downstream impacts
- Can be indirectly measured with available data

Disadvantages

1. Current System

- Does not discount for through traffic
- Does not directly account for upstream-downstream impacts

2. Count Only Local Roads

- Requires a change in Level of Service standards
- May require a reevaluation of staging ceilings
- Does not discount for through traffic on local roads
- Does not account for upstream-downstream impacts

3. Volume Based User Average Level of Service

- Requires most computation
- Has least directly observed information
- May require a reevaluation of staging ceilings

4. Time Based User Average Level of Service

- Requires a change in Level of Service standards
- May require a reevaluation of staging ceilings
- Has less directly observed information than (1) or (2)

Recommendations

The Planning Department will await public comment on these measurement options and then will recommend to the Planning Board which option(s) should be pursued further.

B. The Tradeoff Between Auto and Non-Auto Modes

As issue 5b in the FY93 Annual Growth Policy, the County Council stated that the Planning Board should take the lead in re-evaluating:

- b) the desirability of increasing the number of level of service categories to be more sensitive to ridesharing, transit, and non-motorized transportation alternatives to auto travel. This effort should build upon the work prepared for the Staff Draft FY 92 AGP.*

This year, in addition to the Council identified issue, we also have the first instance where HOV facilities may need to be considered for staging ceiling capacity analysis. HOV is allowed for conceptually in Chart 1a* (following page 103), but does not as neatly fit into our current measure of average LOS. Section (d) below discusses in part how HOV might be better addressed within our measurement system. It is important to recognize that the kind of tradeoff between modes discussed in this section may determine how HOV is measured as discussed in the latter section.

At least two basic approaches can be taken to determining adequate transportation LOS: 1) allow tradeoffs between modes; improved non-auto LOS would allow more congested auto service or 2) set a minimum LOS for each mode, so that all areas would have to meet a certain LOS for auto and non-auto modes. The present approach is a variant of the first basic approach.

In part because it is considered too expensive to provide minimum levels of service for all modes throughout the County, our current system for Policy Area Transportation Review allows tradeoffs between modes. A fundamental underlying principle behind the current measurement of adequate transportation facilities is that sufficiently higher levels of transit serviceability and use permit more congested levels of service on roadways, while still maintaining an overall transportation LOS. This is applied to trips in the peak hour, a high proportion of which are work trips, but also includes a substantial amount of non-work travel. The current system only considers transit and auto as the available modes; walk and bicycle are considered as part of transit access, not as independent modes of travel. HOV, for which essentially no special facilities are as yet designated, is only considered as an element of transit availability.

Within this framework, there are several possible ways of determining the tradeoff between modes. The first is our current six-group system. A second system, which was initially recommended in the Staff Draft FY 92 AGP, would have nine groups. (However, the Planning Board recommended that the six-group classification be retained for simplicity of understanding.) The third would not use groups at all, but would have a direct relationship between non-auto LOS and usage versus auto LOS and usage.

1. Current System, Six Groups

Currently, roadway LOS is determined using a continuous scale, which is then grouped to an average LOS category. The previous section above (Issue 5a) generally described how this is done. Transit availability and use is computed with a quantification of transit service, described on Chart 1a and below, and

grouped into categories. Areas are classified based on several parameters and fall within one of six groups. More congested roadway LOS is permitted for those transit groups with more service available and used in a step-like fashion. There are six different area congestion standards for each of the six transit groups for Policy Area Transportation Review.

TABLE 2: UNDERLYING MEASURES OF TRANSIT AVAILABILITY AND USE

Concepts	Specific Measures
A. Coverage	<ol style="list-style-type: none"> 1. Percent of Households within 1/4 mile of bus stops within 1/2 mile of rail stations 2. Percent of Jobs within 1/4 mile of bus stops within 1/2 mile of rail stations
B. Frequency	<ol style="list-style-type: none"> 1. Average Bus Frequency 2. Average Train Frequency
C. Accessibility	<ol style="list-style-type: none"> 1. Ratio of Sidewalk miles to Street miles 2. Ratio of Bikeway miles to Street miles 3. Number of Secure Bicycle Parking Spaces 4. Number of Park-and-Ride spaces
D. Use	<ol style="list-style-type: none"> 1. Percent Non-auto Driver Work Origin 2. Percent Non-auto Driver Work Destination 3. Percent Walk/Bike to Metro Stations

Applying the above quantification of transit service to the policy areas, in effect gives our current LOS assignments to groups, shown on the next page in Table 3. The areas are ordered according to increasing transit service (for instance, among the Group II areas, Germantown West has more transit service than North Potomac).

TABLE 3: ASSIGNMENT OF POLICY AREAS TO CURRENT TRANSIT LEVEL OF SERVICE GROUPS (SIX GROUPS)

Groups	Transit Level of Service	Assigned Policy Areas
I	Marginal	Patuxent Darnestown/Travilah Goshen Poolesville Upper Rock Creek Clarksburg
II	Limited	North Potomac Damascus Cloverly Potomac R & D Village Germantown East Germantown West Germantown Town Center Montgomery Village/Airpark Olney
III	Moderate	Aspen Hill Fairland/White Oak Gaithersburg City Derwood/Needwood/Washington Grove/Shady Grove
IV	Frequent	Rockville City Kensington Wheaton North Bethesda Wheaton CBD
V	Full	Bethesda/Chevy Chase Silver Spring/Takoma Park Bethesda CBD
VI	Expanded	Silver Spring CBD

2. Increase the Number of Groups of Transit Availability and Use

A variation on the current system would increase the number of groups for Policy Area Transportation Review. The number of groups can be set for administrative convenience. In the FY 92 AGP, staff proposed a nine-group system, now shown on an updated Chart 1b (following page 103).

Applying the transit service quantification discussed above to this system, staff proposed as "Scenario 4" in the FY 92 Annual Growth Policy Staff Draft the following assignments to new LOS categories given in Table 4, with some changes in nomenclature. With this system which moves some of the LOS breakpoints, only Montgomery Village/Airpark changes from a Group II to a Group IIIa as compared with the six-group system. Different roadway congestion standards would be established for IIa as compared with IIb, IIIa vs. IIIb, and IVa vs. IVb. For this reason, staging ceilings may need to be re-evaluated. For this and other changes, a decision could be made to hold harmless the net remaining staging ceilings until new capacity was established in an area.

The County Council, in the FY 93 AGP work sessions, discussed a "Group II and a half" for Germantown West. With this changed classification system, more area-wide average congestion would be acceptable, so the area-wide LOS would need to be a "C-" rather than a "C". Unless LATR methods or standards were changed (an issue discussed in 5c below), Germantown West and Germantown Town Center would still have LATR constraints.

Other areas where some additional congestion would be acceptable under a nine-group classification, as compared with the current system, include the IIb areas, the IIIb areas, and the IVb areas. It is, however, a policy decision where to set the tradeoff point between roadway and non-auto modes. The acceptable roadway congestion for each transit group would need to be established in order to apply this approach.

TABLE 4: ASSIGNMENT OF POLICY AREAS TO A NINE-GROUP CLASSIFICATION

Groups	Transit Level of Service	Assigned Policy Areas
I	Marginal	Patuxent Darnestown/Travilah Poolesville Goshen Upper Rock Creek Clarksburg
IIa	Very Limited	North Potomac Damascus Cloverly
IIb	Limited	Potomac R & D Village Olney Germantown East Germantown West Germantown Town Center
IIIa	Moderate	Montgomery Village/Airpark Aspen Hill Fairland/White Oak Gaithersburg City
IIIb	Good	Derwood/Needwood/Washington Grove/Shady Grove
IVa	Frequent	Rockville City
IVb	Very Frequent	Kensington/Wheaton North Bethesda Wheaton CBD
V	Full	Bethesda/Chevy Chase Silver Spring/Takoma Park Bethesda CBD
VI	Expanded	Silver Spring CBD

3. No Groups; Use a Direct Relationship Between Modes

Another alternate approach to the tradeoff between auto and non-auto modes is one based upon a direct relationship among the LOS measures for each of several modes. Such an approach would allow for a direct tradeoff between improvements in one of the modes and the establishment of additional staging ceiling capacity. The present approach uses an inverse relationship between the LOS of two modes, roadway LOS combined with transit LOS. In our current inverse relationship, a poorer LOS in one mode is compensated for by a better LOS in the other in order to achieve a relatively constant total transportation LOS. The alternate "no groups" approach would place non-auto LOS on the same scale as roadway LOS.

In this direct relationship approach the LOS measures for each mode go in the same direction so that the best LOS is at the "A" end of the scale and a poor LOS is at the "F" end of the scale for all modes. Then it would be much easier to calculate an average LOS for the total transportation system by combining the measures, in a weighted fashion, among each of the modes.

One way to do this mathematically is to combine the contribution of each mode to the total transportation LOS. The contribution of each mode would be the product of its LOS measure and the share of travel by that mode. The share of travel by each mode would be the average of the origin and destination modes shares for that mode for each policy area. The average LOS measure for the auto mode could be the measure currently being used. New measures might need to be developed for the other modes, or the factors currently used in determining the transit LOS group could be used. It would also be necessary to establish a single county-wide standard for total transportation LOS. For the current inverse relationship approach between two modes, it is not necessary to specifically define a constant county-wide standard. Rather, the simple tradeoff is intended to result in the achievement of a generally constant total transportation LOS, although its value is not explicitly defined.

This approach, in using mode shares to weight the contribution of each mode, also raises the question of which mode shares to use. At least two alternatives are possible: 1) the use of forecast mode shares, from the transportation model, given the assumed inputs to the transportation system at the time of the test, or 2) the use of "targeted" mode shares, which could be used the system to permit more development when desired modes had improvements. While forecast mode shares are readily available, targeted mode shares are only available in certain circumstances.

Advantages

1. Current "Six-Group" System

- Somewhat understood by public and policy makers
- Measures and standards already defined
- Administratively easier

2. Nine-Group System

- Easier than no group system to implement
- May be more easily understood by public than no group system
- "More Bang for Buck" - easier to change groups
- May result in additional staging ceiling capacity

3. No-Group System

- Provides greatest incentive to program non-auto improvement
- Most objective measure
- Conceptually simpler than a "group" system
- "Most Bang for Buck" - recognizes fiscal constraints
- Tradeoff depends directly on mode usage
- Greatest equity between areas

Disadvantages

1. Current "Six-Group" System

- Least Incentive to program non-SOV improvements
- Break points between groups are not always clear
- Does not recognize fiscal constraints
- Hard for area to change groups

2. Nine-Group System

- Break points between groups are not always clear
- Requires more confidence in measures of transit service
- May result in different staging ceilings
- May lose some leverage over CIP

3. No-Group System

- Requires more accurate measurements of mode usage
- Requires most confidence in measures of transit service
- May result in different staging ceilings
- Most radical change compared with current system
- No empirical basis for setting the relative weights among the levels of services of the different modes

Recommendations

The Planning Department is awaiting public comments before making a recommendation as to which measurement approaches for setting the tradeoff between transit service and auto congestion should be adopted.

C. Local Area Transportation Review

Issue 5c instructs the Planning Board to re-evaluate

- c) *the critical lane volume standards for Local Area Transportation Review. As part of this effort, the effect of varying the standard by policy area according to its level of service category should be examined."*

In addition to the critical lane volume method, other alternative measures of local area congestion were investigated by the Planning Department. Several variants of the intersection analysis methods and standards are described below, which can be applied in a number of ways. First discussed are certain analysis parameters common to all the methods, including: geography, definition of the peak, background land use activity magnitudes, and programmed transportation facilities. The second section concerns alternative measures of local area traffic impacts. The third covers non-auto measures of transportation service that could be used for local area review. The fourth section discusses trading off roadway and non-auto levels of service. This discussion relates to issue 5b above in the preceding section.

1. Analysis Parameters:

At least four main analysis parameters can be changed in the application of LATR measures. The first is the geography of application - Where is a measure applied? The second is definition of the peak - Over what period of time is the measure applied? The third is the background land use activity magnitudes, changing what is considered to be the background development changes the results of the measure. The fourth is the rules that define the programmed transportation facilities - changing the time frame for when transportation improvements can be considered programmed also changes the result.

Geography: Many of the measurements can be applied to different geographies. Moreover, different methods or standards may be appropriate to different areas. Currently, several LATR standards are in effect in different parts of the County. Group I areas have one standard, Group II to V areas have another, and the Group VI Silver Spring CBD has a third. In addition, Bethesda CBD, Friendship Heights, Potomac, and the R&D Village all have special rules. The issue of geography is closely related to the issue of the tradeoff between roadway and non-auto LOS discussed below.

Definition of the Peak: In the present measurement approach, the peak hour is used for the computation of intersection LOS. An alternative which could be applied under certain circumstances would use the peak two hours rather than a single peak hour. Such a change in measurement would, in effect, increase the development capacity by accounting for the fact that certain intersections are only at their traffic capacity for a portion of the peak period - by definition, the peak hour has at least as much traffic as the next highest hour of the peak period. Thus, intersection capacity would be considered for an additional hour. Only if the standard is exceeded for the two-hour period would development not pass the LATR.

Currently, the peak-hour standard is 1525 critical lane volume (CLV) movements in many areas. Suppose the two-hour standard were 3050 CLV. Then, as an illustrative example, assume an intersection has a peak-hour CLV of 1600 critical movements and a peak two-hour CLV of 3000 critical movements. In this example, while the intersection would fail the one hour test (1600 is higher than the standard of 1525), it would pass the two-hour test (3000 is less than the presumed standard of 3050).

Background Land Use Activity Magnitudes: Currently, the base plus the pipeline of approved development is used as background when a traffic impact study is performed. This set of assumptions relates to the discussion of Issue 1 earlier in this chapter. The magnitude of the approved development in the pipeline in some areas exceeds the 2010 forecast for employment. That is an indication that, if the forecast is correct, development which is approved but unlikely to build in the near term is tying up development capacity that could be used for unapproved development. Some of this unapproved development may be able to move forward under current economic conditions.

A number of possible alternatives exist for modifying land use activity assumptions including: 1) use forecast land use activity associated with a particular point in the future; 2) allow trading by those who have current approvals to sell or barter their approvals to another developer with similar traffic impact in the same area (changing what is defined as approved development); 3) impose shorter term expiration of development approvals (thereby reducing the amount of approved but unbuilt development); 4) impose fees that will be used to provide additional transportation facilities when needed (do not count approved development as having traffic impacts and do not include background transportation improvements by that development).

Definition of Programmed Transportation Facilities: Currently, the Approved Road Program (ARP) is used for LATR to define which transportation facilities should be considered as being programmed. By extending the time frame in the ARP to some longer time frame, more transportation improvements will be available. This may possibly make it easier for a site to pass LATR, yet still have adequate facilities in a timely manner. This option has been discussed as part of the Development District proposals. It should be noted that longer time frames have more uncertainty.

Recommendations: After hearing public testimony on various potential changes in the analysis parameters, including the geography, time period, and background land use activity measures and programmed transportation facilities, the Planning Department will make a recommendation on whether and how these analysis parameters might be changed.

2. Roadway Level of Service for Local Area Transportation Review

Roadway LOS for LATR measures can be classified based on two main aspects of the measurement. The first aspect is scale of analysis - which can be the measure for analysis whether the measure is for the intersection approach, total intersection, or an overall roadway network. The second aspect is the kind of measurement - whether the measure is based volume or time. The current approach

of the critical lane volume method is a volume-based measurement for an entire intersection. Figure 1 identifies several potential measures according to this classification. Each measure is described below according to its relative position in Figure 1, starting with "intersection approach, volume based," going then to the time column, then to the next row and across, and so on.

**FIGURE 1: CLASSIFICATION OF ROADWAY LEVEL OF SERVICE MEASURES
FOR LOCAL AREA TRANSPORTATION REVIEW BY SCALE OF
ANALYSIS AND KIND OF MEASUREMENT**

SCALE OF OF ANALYSIS	KIND OF MEASUREMENT	
	a. VOLUME BASED	b. TIME BASED
1. INTERSECTION APPROACH	- Volume-to-Capacity Ratio	- Stopped Delay - Queuing*
2. TOTAL INTERSECTION	- Critical Lane Volume*	- Average Delay
3. OVERALL ROAD NETWORK	- Average Congestion Index* - Cordon* - Screenline - Average Critical Lane Volume	- Delay/Trip - Time/Trip

* *Methods that are currently used to measure local congestion levels in Montgomery County*

1. Intersection Approach

a. Volume Based

Volume to Capacity Ratio: For each intersection approach, a capacity can be defined based on a) the number of available lanes and b) the amount of green time per hour given to that approach. Dividing the approach volume by the approach capacity gives a volume-to-capacity ratio measure of LOS. A scale would need to be developed to define acceptable standards for this measure. Volume is currently measured by MCDOT on a regular basis at many intersections and traffic impact studies are required to provide current approach volumes. Capacity is more difficult to directly measure, but the transportation engineering profession has some standard techniques for determining such capacities. Because different intersection approaches

would have different LOS values, development which used uncongested approaches would have less constraint than development which used more congested approaches.

Throughout this section, the example of the intersection of Nicholson Lane and Rockville Pike in the afternoon peak hour is used to illustrate the different potential LATR methods. Traffic values are from a count taken July 31, 1990 for the Montgomery County Department of Transportation. Some illustrative measures associated with this example are given in Table 5. Four intersection legs at this intersection have ten approach turning movements. The volume-to-capacity ratios observed at this intersection are given in the Table.

**TABLE 5: INTERSECTION APPROACH LEVELS OF SERVICE MEASURES
FOR THE AFTERNOON PEAK HOUR AT NICHOLSON LANE AND
ROCKVILLE PIKE**

Direction of Traffic	Turning Movement	Volume-to Capacity Ratio	Average Stopped Delay (Seconds)	Average Queue (Cars per Lane)
Eastbound	Left/Through	1.04	68	9
	Right	0.44	21	9
Westbound	Left	1.08	102	9
	Through	0.90	47	9
	Right	1.09	102	9
Northbound	Left	1.01	120	4
	Through	0.96	32	13
	Right	0.79	22	13
Southbound	Left	1.16	167	9
	Through/Right	0.82	21	13

Source: Montgomery County Planning Department

*Note: Traffic count: Nicholson Lane at Rockville Pike, 7/31/90,
by Montgomery County Department of Transportation*

b. Intersection Approach: Time Based

Stopped Delay: For each intersection approach, stopped delay can be estimated based on volume, the number of lanes, green time for each approach, and cycle length of the traffic signal. The Highway Capacity Manual Operational Method uses delay for measuring LOS. Intersection delay can be measured, although no agency program in Montgomery County exists for doing so at this time. Intersection delay can be computed using one of several equations. The more delay per vehicle on an approach, the more congested the LOS. Standards can be set, probably based upon guidance from the Highway Capacity Manual. Table 5 shows the observed range of delay by intersection approach turning movement for this intersection example, ranging from about twenty seconds to nearly three minutes. There is also not a direct correlation between this stopped delay and the volume-to-capacity ratio discussed above.

Queuing: The number of cars stopped at an intersection approach is defined as the queue. If the queue is long enough to interfere with the operations of other nearby intersections, then what is generally considered by the public as gridlock can result. A queue ten car lengths long is equal to about a 250-foot distance. For the Silver Spring CBD policy area, the queuing method is currently being used, in part to determine whether the degree of traffic congestion associated with the proposed development will be tolerable. Table 5 shows the calculated queues for each intersection approach turning movement in the example. Once again, the example shows that there is not necessarily a direct correlation between the calculated queues and the two previous measures of volume to capacity ratio and stepped delay.

2. Total Intersection

a. Total Intersection, Volume Based

Critical Lane Volume: In much of Montgomery County, the critical lane volume method is the main current measure for LATR. This method uses volumes associated with conflicting turning movements at an intersection to measure the relative degree of congestion of the intersection as a whole. When an intersection is at capacity, that means additional traffic cannot be safely and efficiently accommodated in the peak conflicting movements, although traffic in the off-peak directions may not notice excessive delays. Volumes are generally measured for the whole peak hour, although they are usually based upon fifteen minute or half hour tallies. For the example given in the above section, the associated CLV is 1648 critical movements as calculated from the method given in the LATR Guidelines. This value of CLV represents a local LOS F for the entire intersection.

There are a number of simplifications made when applying CLV, including using certain factors for lane utilization, effective capacity, platooning of vehicles, etc. A more refined accounting of these more difficult to

predict factors would lead in theory to an improved CLV measurement. It is unknown whether such changes would result in a measurement that was necessarily higher or lower in value than the current measurement.

b. Total Intersection, Time Based

Average Delay: By computing the weighted average stopped delay at each approach and combining them, the average delay for the whole intersection can be computed. This is dependent on knowing both volume and signal timings. Such an average stopped delay would be seen as an overall measure of congestion for the entire intersection. For the intersection as a whole in the example in the previous section, the average delay per vehicle is 48 seconds. This is an LOS of E according to the scale in the Highway Capacity Manual.

3. Road Network

a. Road Network, Volume

Average Congestion Index: The average congestion index is the measure currently used for policy area review. The same measure, or a variant, could also be applied to determine the average volume/capacity (v/c) for a smaller area, such as the area in the vicinity of a transit station. This may be feasible only if all of the roadways and streets in the area are analyzed, such as in the Comprehensive Local Area Transportation Review for the Bethesda CBD and North Bethesda, not just the major roadways, as is done with the current policy area transportation review.

Area Cordon: A cordon around an area can be drawn, and the overall capacity determined. Based on the total volume of traffic traveling across the cordon, a cordon volume-to-capacity ratio can be computed and used to represent the LOS. A maximum volume can be set. A method such as was been used with the 1976 and 1983 Bethesda CBD Sector Plan Analysis.

Area Screenline: This method is similar to an area cordon. However, the directionality of traffic can be incorporated into the analysis by computing the capacity exiting the area in a certain direction across what is termed a "screenline". The volume crossing the screenline can be estimated and a screenline volume-to-capacity ratio can be computed as a measure of LOS. A maximum volume for each screenline can be set.

Average of Area Intersections: The CLV can be computed for each intersection in an area or for a select sample. A weighted average of the CLVs could then be calculated and compared with a standard. If the average intersection CLV is less congested than the standard, then additional development could be permitted.

b. Road Network, Time Based

Average Travel Time: Using a calibrated model, the average vehicle travel time from or through an area can be computed. Travel time from an area

would be extracted from a trip table and output travel times. A standard of acceptable travel time would need to be established.

Average Percent Delay: A variant on using average travel time would be using the amount of delay experienced on a trip from or through an area. The higher the congestion, the more the delay. Peak travel time would be compared with freeflow travel time to determine percent delay per trip.

Planning staff's evaluation of the various categories of level of service measures has included the use of the following criteria:

- understandability by public officials and the general public;
- degree of certainty in predicting future congestion levels;
- degree of risk of intolerable local congestion occurring;
- availability of data for measuring current conditions;
- replicability by others;
- availability of techniques for forecasting process and setting standards;
- degree of consistency with current system;
- degree of impact on non-auto modes;
- relative amount of time needed to conduct each analysis;
- applicability over different sized geographic areas; and
- degree of support of planned development.

The results of this evaluation effort are presented in Table 6.

TABLE 6: ADVANTAGES AND DISADVANTAGES TO VARIOUS AUTO LEVEL OF SERVICE APPROACHES

APPROACH	ADVANTAGES	DISADVANTAGES
Scale of Analysis:		
Intersection Approach	Reduces risk of intolerable local congestion	Requires new data on signal timings
	More understandable by public	Requires new standards
	Well represents how an intersection is perceived	
	More applicable over different sized geographic areas	
Total Intersection	Requires least change to current system	Less understandable by public
	Techniques for setting standards generally available	
		Does not well represent how an intersection is perceived
	Data generally available for measuring current conditions	
Road Network		May require more data on more intersections
	Generally promotes planned development	May require new standards in some instances
	Forecasting process generally available	More risk of intolerable local congestion occurring

APPROACH	ADVANTAGES	DISADVANTAGES
Kind of Measurement:		
Volume	Forecasting process generally available	Not easily understandable by public
	Consistent with current system	
	Generally no need to change standards	

Time	More understandable by public	Requires new data on signal timings
		More difficult to forecast
		Requires new standards

Recommendations

The Planning Department currently uses the critical lane volume method for measuring and evaluating local area roadway LOS in most areas. In the Silver Spring CBD, queuing analysis is performed; in the adopted Bethesda CBD Sector Plan, a cordon approach is used. Other methods have advantages and disadvantages as compared with the CLV approach. It is desirable for the analysis methodology to be consistent in all areas if there are no major drawback to doing so. The Planning Department awaits comments before making a recommendation on which local LOS methods to examine further.

3. Non-auto Level of Service for Local Area Transportation Review

This section describes measures of non-auto LOS that could be used at a local level, perhaps as part of a broader Transportation Impact Study rather than the traditional auto-oriented Traffic Impact Study. The following section discusses how such a tradeoff between auto and non-auto LOS could occur for LATR.

Broadly there are demand measures and supply measures. In general, LOS is a supply measure; however, one measure of the quality of non-auto modes is what proportion of people use those modes. Among the supply measures, there are measures of the transit trip itself and of the access/egress trip.

Another option investigated for LATR would set measures and standards for non-auto LOS in transit station areas and possibly throughout the County. This may be used so that more congested roadway LOS is traded for better non-auto

service. Either specific local area measures can be used as described below, or the policy area transit service level could be applied for all local area reviews in a policy area.

The transit trip LOS depends on how well a person can get from point "A" to "B". This depends on comfort, convenience, and travel time. Opportunities available are one measure, as are the frequency of bus service, the number of houses or jobs within walking distance of transit, the reliability of the service, the comfort on the trip, and the speed with which the transit vehicle moves.

The trip from the origin to the transit stop, or from the alighting point to the final destination, is called the Access or Egress Trip. The quality of this trip depends on whether foot, bike, or auto are used to access transit. Pedestrian access quality can be measured using pedestrian LOS measures described below. Auto access quality can be measured by the time to the transit stop and the availability and cost of parking. Bike trips can be measured by the presence of bikeways (Class I, II, or III) and bike shelters at the transit stop. The quality of the wait can be measured by the presence of a shelter and the quality of the shelter.

a. Demand Measures

Usage: Usage is an observable demand measure and can be forecast with reasonable accuracy in the near term. The proportion of individuals making a certain kind of trip and using a particular mode is the measure of mode usage and is a function of both the attributes of the mode as well as those of competing modes. The mode usage for work trips is measured periodically as part of the MCPD Census Update and for non-work trips by the MCPD Trip Purpose Travel Surveys.

b. Supply Measures

1) Quality of Transit Trip

Opportunity: This is a measure of the number of destinations (opportunities) reachable from an origin by a mode within a certain time period. For instance, the measure might be percent of regional jobs reachable within 45 minutes by a mode. Alternatively, the measure could be the ratio of opportunities available by transit to those by auto in the same 45 minute time period. Better transit service is in part indicated by a higher number of opportunities. This can be estimated at the zone level using a model. For a site, the opportunities can be presumed to be similar to those associated with its traffic zone.

Frequency: This is a measure of the frequency (or headway) of transit service along a route. The higher the frequency, the shorter the waits, and the shorter the total average travel time between places. This can be determined from published transit schedules and perhaps estimated for the future from anticipated

changes programmed in transit service. For a site, the frequency can be estimated along transit routes within walking distance of the site.

Coverage: This is the measure of the percentage of buildings or persons in an area within a certain walking distance (time) of a transit route. This is now being measured using the transportation geographic analysis system for traffic zones, but could easily be measured for a site.

Reliability: This is the measure of on-time performance of a transit service. This is in general more a function of the quality of the transit service than of land use design. However, it can in part be impacted by design: is the network in and around the site resilient to traffic incidents caused by accidents or breakdowns? Is there excessive congestion and does this impact transit service?

Comfort of Service: The comfort of service from boarding the system to alighting can be determined in part by whether the patron can sit or has to stand, and the crowding of the transit service. By this definition, a lightly-used bus has higher comfort of service than a full bus.

Directness: The directness of service can be determined by whether the bus is an express or local, the number and duration of stops between an origin and a destination, the number of transfers, and the speed of the service. This measure corresponds to overall travel time, although time spent in waiting is viewed more onerously than time spent in actual travel of movement.

2) Quality of Auto Access Trip

Access Time: The amount of time it takes to access a park and ride lot, or kiss and ride drop off is one measure of the quality of the access trip.

Parking Availability and Cost: The availability of parking and its cost at the nearest park and ride lot are a measure of the quality of the trip. Unavailability of parking after a certain time, or a high charge makes the trip undesirable in the eyes of trip maker.

3) Quality of Pedestrian Access Trip

Sidewalk Ratio: The ratio of sidewalk miles to street miles [ranging from 0 - 2] is an indicator of the quality of the Pedestrian Access trip. This is easily measured using the MCPD Sidewalk Inventory and can be measured at and around sites as part of a Transportation Impact Study.

Circuitry: Measures the ratio of shortest sidewalk travel path to euclidean (airline) distance between two points, such as a site and

a transit station or a site and an elementary school. The higher the circuitry, the worse the pedestrian conditions.

Connectivity: In one sense, connectivity is the inverse of circuitry. Measured from a network, the number of cross-streets per linear mile in an area is one measure of connectivity. The higher the connectivity, the more direct the route, but the more streets which must be crossed.

Delay: Measures the average stopped delay of a pedestrian at a signalized intersection. Just as many cars need to wait at traffic signals in order to safely cross, so too must pedestrians. This can be determined from signal timings and phasings, or estimated based on forecast volumes. Delay could be measured between two points, such as a site and a shopping center. The higher the delay, the worse the pedestrian conditions.

Hazard: A measure of pedestrian accident rates at an intersection or in an area defines the hazard of an area. Hazard is in part a function of cross volumes, speed, and geometric design of an intersection.

4) Quality of Bicycle Access Trip

Bikeway Ratio: Comparable to the Sidewalk Ratio, it is the ratio of Class I or Class II Bicycle Routes to Street Miles in an area. This can be measured with the MCPD Bicycle network inventory.

Parking: The presence or absence of secure bicycle parking facilities at transit stations influences the propensity to use the bicycle to access transit.

Recommendations

There are advantages and disadvantages to the use of non-auto LOS measures. Probably the most fruitful method would be to use a bundle of measures as is currently done with the transit LOS for Policy Area Review. The use of non-auto LOS is an approach which will also require a decision on the tradeoff of auto and non-auto LOS, discussed in the next section. Planning Department staff await public testimony and comments from other branches of government before making a recommendation on non-auto LOS measures.

4. Trading Off Auto and Non-auto Level of Service

The previous two sections discussed various measures of roadway and non-auto LOS that can be applied for LATR. As discussed earlier in issue 5b, tradeoffs can be established between roadway and non-auto LOS for both policy area and local area transportation review. The tradeoff can be done at the Policy Area, Transit Station Area, or Site level of geography, or at all three.

a. Current System

The current system establishes two general LATR Standards, although the Central Business Districts, which have higher transit service, have special rules as identified in Master Plans. The roadway LOS for an intersection subject to LATR is determined using the CLV technique. The lowest acceptable LOS for policy areas with established staging ceiling is set at mid-point LOS "E", or a CLV of 1525. For policy areas without established staging ceilings, the Group I areas, the lowest acceptable LOS is set at "D/E", or a CLV of 1450. There are exceptions for several areas, including Bethesda CBD, Friendship Heights CBD, Silver Spring CBD, Potomac, and the R & D Village.

b. Use Same Groups for Local Area and Policy Area Review (Level of Geographic Analysis: Policy Area)

An alternative system would change the LATR CLV standard for new development depending upon the non-auto LOS group of the policy area in which it is located. Standards could be set, for instance, as in the example in Table 7.

Obviously, the ultimate standard depends upon the method chosen and any other changes in assumptions that are made. A policy decision would need to be made as to what level of congestion is acceptable. Relaxing LATR standards will lead to less expensive development costs and thus additional development and additional congestion.

As an example, the standard may be set at a certain level in groups with higher transit service, and lower in areas with less transit service. North Bethesda, a Group IV area, might have a standard of 1600 CLV, while Germantown East, a Group II area, would be lowered to a 1500 CLV standard under the six group system.

TABLE 7: POSSIBLE LATR "CLV" STANDARD FOR DIFFERENT GROUPS

SIX GROUP MEASURE	POSSIBLE STANDARD	NINE GROUP MEASURE	POSSIBLE STANDARD
I	1450	I	1450
II	1500	IIa	1500
		IIb	1525
III	1550	IIIa	1550
		IIIb	1575
IV	1600	IVa	1600
		IVb	1625
V	1650	V	1650
VI	1800	VI	1800

c. Directly Tradeoff Local Measure of Non-auto with Auto LOS (Level of Geographic Analysis: Transit Station Areas)

The previous section discussed possible measures of non-auto LOS that can be used at the local level. A Comprehensive LATR, part of the Master Plan Staging/Phasing Analysis, could evaluate both auto and non-auto LOS conditions around an area, such as a Transit Station Area. Depending on the non-auto LOS measures adopted, additional roadway congestion would be accepted for better non-auto LOS. Thus, if there were more and wider sidewalks, bus shelters, a rail stop, safer pedestrian conditions, etc., then a higher standard would be accepted. Different Transit Station Areas would have different LATR standards, but all would be using and applying the same framework.

For instance, a method or standard may be applied to development in Transit Station Policy Areas, but not to development outside the area, for the same intersection inside or outside the area. As an example, the intersection of Nicholson Lane and Rockville Pike in North Bethesda is impacted both by trips from the White Flint sector plan area and by trips from the East Jefferson Street area. The standard from White Flint could be set at 1800 CLV, while that from East Jefferson St. might stay at 1525 CLV. Then the impact of additional development would be more acceptable in the White Flint sector plan area than outside the area.

d. Tradeoff Site Measure of Non-auto Level of Service with Roadway Level of Service (Level of Geographic Analysis: Transit Oriented Sites)

Option 3 above would trade improved non-auto LOS for more congested roadway LOS for an area such as a Transit Station Area. Option 2 varied the standard by

policy area. The same principles could be applied on a site basis during LATR. Individual sites throughout the County which have better non-auto LOS would be deemed acceptable in having higher congestion at nearby intersections. A Transportation Impact Study would evaluate non-auto LOS measures on and around a development site. If the site were designed to permit easy and efficient service by buses, was served by a through route or nearby stop, had sidewalk connectivity to nearby activities such as schools, shopping, or transit lines, and other positive attributes, an additional amount of congestion would be tolerated at nearby intersections. A point system for non-auto LOS attributes would likely need to be established. A certain number of points would permit the applicant an additional 25 or 50 critical movements at the most congested intersection, which may be enough to avoid mitigation.

For instance, two similarly situated areas, one with high transit/pedestrian orientation (a "transit neighborhood") and the other a typical automobile-oriented "cul-de-sac neighborhood", would both impact the same intersection. The standard for the "transit neighborhood" could be 1575 CLV, while the "cul-de-sac neighborhood" would retain a 1525 CLV standard. If the intersection were congested near the standard, the "transit neighborhood" would have less expense in developing as it would not need to spend as much in mitigation. A system for quantifying the transit/pedestrian orientation of the neighborhood would need to be developed. Section ~~(iii)~~ discusses some local area measures of non-auto LOS.

e. No Local Area Transportation Review Standard

When Policy Area Transportation Review was originally proposed as part of the Comprehensive Planning Policies reports, it was proposed to replace LATR standards. In certain areas, it could be deemed that there is no need to have both LATR and Policy Area Review staging ceilings. No LATR test would need to be passed. This could apply to Transit Station Areas or to Group V Areas, for instance.

Recommendation

While Planning Department Staff does not wish to make a recommendation until after public testimony, it should be noted that options ^{b, c, d} 2, 3, and 4 are complementary rather than exclusive. The selection of any method for trading off between auto and non-auto LOS depends on the methods chosen for auto and non-auto LOS, discussed in the previous sections.

TABLE 8: ADVANTAGES AND DISADVANTAGES TO VARIOUS NON-AUTO LEVEL OF SERVICE APPROACHES

APPROACH	ADVANTAGES	DISADVANTAGES
Demand Measures	<p>Positive impact on encouraging non-auto modes</p> <p>Generally promotes planned development</p> <p>More understandable to the public</p>	<p>Not generally applicable in different sized geographic areas</p>
Supply Measures	<p>Positive impact on encouraging non-auto modes</p> <p>Generally promotes planned development</p> <p>More understandable to the public</p>	<p>Not generally applicable in different sized geographic areas</p>

D. Treatment of High Occupancy Vehicle Facilities

The Planning Department has identified a fourth methodology issue that needs to be addressed -- accounting for HOV lanes in the Annual Growth Policy. The State Highway Administration is in the process of designating the added capacity on the I-270 East Spur, the I-270 West Spur, and I-270 from Father Hurley Boulevard (M-27) to Clarksburg Road, MD 121, as HOV lanes. It is also expected that this will precipitate the opening of the "Future HOV Lanes" now designated on the signs on I-270 from the "Y" split to the future Father Hurley Boulevard interchange. Different funding categories available from the Federal Government under the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) tend to encourage providing HOV-related improvements. In addition, the Metropolitan Washington's status under the Clear Air Act is also encouraging the implementation of HOV facilities.

A number of options can be considered for accounting for HOV facilities in the measurement of area-wide congestion for the Annual Growth Policy. These are identified and discussed below:

1. Exclude Freeways from the Averaging in Average Level of Service

As discussed in Issue 5a, an approach that could be followed is to exclude the contribution of freeways to the average LOS in the setting of staging ceilings. It will be indirectly accounted for in the average LOS calculation because the TRAVEL model's estimate of traffic on other roads will reflect the HOV operations.

2. Treat HOV as if the Capacity Were Regular Lanes

Using our current methods and considering the capacity as if it were normal freeway capacity would not require any change in the administrative procedures. If the HOV facilities fail, they may revert to SOV, as happened on the Santa Monica Freeway in California and has recently occurred with the Dulles Toll Road. In this case, considering HOV as SOV might be a conservative response. However, given the new federal funding categories being proposed, it may not be possible for the State Highway Administration to administratively revert the HOV lanes to regular travel lanes.

3. Set Explicit Average Level of Service Standards for HOV Lanes

Experience of other areas where HOV lanes have been provided has shown that, in order for them to be effective, two basic things should occur: 1) the operation of the HOV lanes should be relatively free of congestion, operating up to link LOS C and a volume per hour per lane of 1500 vehicles or less, and b) congested conditions of link LOS E are expected to occur in the parallel general purpose use lanes. Generally speaking, under those operating conditions, for each mile of HOV lane there is about one minute of travel time savings for the HOV users. Having an HOV lane of about ten miles long will thus produce about ten minutes or more of reduced travel time to the HOV users, which is usually sufficient incentive for more commuters to go through the extra time and inconvenience of forming the carpools. Therefore, an approach which could be

used in the AGP would be to first separate out, in the averaging of LOS, the travel volumes of the HOV lanes and general purpose freeway lanes from all the other roadways in an area. Standards would then be set to have congested conditions on the general purpose freeway lanes, say of link LOS D/E and freer flowing conditions of link LOS C/D on the HOV lanes. Staging ceilings would then be set which would result in traffic that stays within those standards. The minimum vehicle occupancy rules could also then be set so those standards are maintained over time with overall traffic growth.

4. "Georgetown Branch" Option

As was done with the programmed Georgetown Branch Light Rail Line in one of the previous Annual Growth Policy reports, because HOV is new to the area and its usage uncertain, it could be that HOV capacity would not be allocated until after HOV was open and operating. This would permit the County time to see what the actual usage of the HOV facilities would be and to then set any additional staging ceiling development capacity accordingly.

5. Weight Auto Level of Service by Person Miles of Travel

Currently, the Average Congestion Index used as the measure of average LOS for Policy Area Review weights the volume to capacity ratio by Vehicle Miles of Travel (VMT). By weighting the presumably freer flowing HOV lanes by the number of persons rather than the number of vehicles, a measure of LOS more attuned to the availability and use of HOV lanes would result.

6. Treat HOV as an Alternative to Roadway LOS and Add a Factor in Chart 1

Under the current administrative procedures for the AGP, transit LOS for each area is described in Chart 1. An additional column for HOV lanes might result in changing the Group for some areas. It will be necessary to first specify what measures best describe the availability and use of an HOV facility and then provide a means to combine them with the other factors of transit availability and use given in Chart 1.

7. Establish a Total Transportation Level of Service

As discussed under issue 5b above, establishing a Total Transportation Level of Service could conveniently enable HOV to be considered on equal terms with SOV and transit as a mode, weighted by the share of trips using HOV. This is very similar to Option No. 4 above, weighting Auto LOS by Person Miles of Travel, but the weight is associated with the number of trips rather than the length of the trips.

Recommendations

The Planning Department does not wish to make a recommendation until public testimony is heard. All of the options discussed are workable.

6. ADEQUACY OF PUBLIC SCHOOL FACILITIES - METHODOLOGY

Following last Spring's discussion relating to school capacity findings in the FY93 AGP, the County Council asked the Education Committee to review issues related to the determination of public school capacity for AGP purposes. A working group consisting of Council, Executive, MCPS and M-NCPPC staff has met several times to review these issues. The group has prepared a draft report analyzing alternatives and recommending some process changes. This report will be presented to the Planning Board and Council Education Committee in November and subsequently to the full Council.

7. AGP PROCESS CHANGES

A. CONSULTANT FINDINGS

Last fall a consultant to the Planning Department, James Duncan and Associates, in conjunction with Eric Damian Kelly, prepared an Analysis of APF/Growth Management Systems which compared and analyzed growth management systems in seven other jurisdictions. This report was prepared to help inform discussion about possible administrative changes that could simplify Montgomery County's Annual Growth Policy.

The consultant report found that the AGP has "come to do much more than implement the APFO. It has become one of the County's real planning implementation workhorses." The County has used the AGP to achieve many land-use objectives outlined in sector and master plans, a balance of jobs and housing, and affordable housing.

Each year, the Council uses the AGP to help direct the Planning Board's work program by requesting that the Planning Board and Executive analyze between five and eight major growth management issues. Some of this analysis has resulted in major overhauls of the AGP such as the restructuring of policy areas, the addition of a special ceiling allocation for affordable housing and for health care facilities, the addition of a schools test that tests upfront the adequacy of public school facilities rather than on a case-by case basis, and the addition of a sixth level of service classification. Over the years, the County also has investigated making other major changes to the AGP, such as the creation of three additional LOS categories, changing the time in the development review process at which public facilities are tested, and counting a fifth year of the CIP when calculating staging ceilings, but has declined to do so.

The consultant report found that Montgomery County's growth management program takes into account many more policy issues than do programs in other communities. The consultant noted that "keeping multiple growth management objectives in balance within a changing environment virtually dictates regular adjustments, particularly in the early years of a new system" and suggested that "the time may now be right to move toward a more stable system that does not involve major policy changes on an annual basis." After reviewing the AGP in its entirety for six consecutive years, it may indeed be time to put "major policy reviews on a separate, longer planning cycle."

The report recommended that major components of the AGP be codified in a legislative framework; technical procedures be formulated as administrative rules; staging ceilings be reviewed annually primarily for conformance with ordinance and technical requirements; and major policy review be scheduled at longer (e.g. three- to five-year) intervals.

B. POSSIBLE AGP CHANGES

Based on the consultant's recommendations and a review of the Adequate Public Facilities Ordinance and the Annual Growth Policy, staff has identified those elements of the Annual Growth Policy that should continue to be reviewed and approved annually by the Council. Staff also has identified those elements which only should be reviewed periodically and those which could be codified in the Adequate Public Facilities Ordinance or in another growth management ordinance.

1. Elements Which Need To Be Reviewed Annually

Because the Annual Growth Policy ties the approval of new development to the provision and programming of public facilities in local and state capital improvement programs, those components of the AGP which relate directly to the capital program should be reviewed and adopted annually by the Council. Thus, the elements that need annual review are:

a. Policy Area Transportation Review

Several key components of Policy Area Transportation Review need annual review by the Council.

- **Development staging ceilings.** The amount of development allowed by these ceilings depends on what public facilities are 100 percent funded in the first four years of local and state capital improvement programs. Since this changes from year to year and new projects can be counted over time, the ceilings should be reviewed annually by the Council.
- **Allocation of staging ceiling capacity to jobs and housing.** Since 1989 in the FY 90 AGP, Council has directed the Planning Board and the Executive on how staging ceiling capacity should be allocated between jobs and housing. This directive should either be reviewed annually or periodically.
- **LOS assignment.** The assignment of a level of service classification to a policy area depends on what public transportation facilities are programmed in the capital improvement program and on what transit services are included in the operating budget. The LOS assignment for the Fairland/White Oak policy area has changed twice since the first AGP was adopted. There also have been LOS changes when new policy areas have been created. The LOS assignment as depicted in Map 5 should be reviewed annually.

- Roads and transit not to be counted. There are a number of transportation facilities which, because of special circumstances, have not yet been counted in calculating staging ceilings. These include the Georgetown Branch Trolley project and the I-270 east spur widening. In the future, there may be other unique projects which require Council review before they are counted in calculating staging ceilings.

b. Public School Facilities

- Determination of adequate public school capacity. This determination depends on what public school capacity is 100 percent funded in the first four years of the County's Capital Improvement Program and on what enrollment is forecasted four years out. It also depends on how program capacity is defined locally and on the ability of the Board of Education to pursue short-term solutions to capacity problems while long-term solutions are developed. In the FY93 AGP, Council determined that "it would be premature to declare school capacity in FY 1996 to be inadequate" because the Council and Board of Education are actively pursuing appropriate solutions for additional future capacity.
- High school clusters. The number and the geographic boundaries of the County's high school clusters depend on whether new high schools are programmed in the capital improvement program and on what cluster boundaries are adopted by the Board of Education. These clusters as depicted in Map 6 should be reviewed annually.

c. Capital Improvements Program

- CIP Recommendations. One final area of the AGP that requires annual review is the setting of priorities for the following year's CIP. As discussed in Chapter V, the Planning Board has begun to use the AGP to identify capital facilities that could relieve subdivision moratoria, and to prioritize capital projects that are needed to implement master plans and functional plans adopted by the Council. It is important that the Council evaluate these recommendations each year and develop its own priorities for the next CIP.

2. Elements Which Should Be Reviewed Periodically

The list of elements which need periodic review is much longer than the previous list. This list consists largely of elements which are policy related or elements which change as new master plans and sector plans are adopted by the Council.

a. Policy Area Transportation Review

- Traffic zones. The number and boundaries of traffic zones may need to change over time as new master plans and sector plans are

adopted, traffic patterns change, new transit is provided, or if the cities of Rockville and Gaithersburg annex additional parcels. Between 1987 and 1991, the number of traffic zones held steady at 246. In 1991, there was a major restructuring and delineation of boundaries, resulting in a total of 292 traffic zones. The Council should review periodically Map 1 and the configuration of traffic zones.

- **Policy areas.** The number of policy areas has changed more frequently over the years from 13 in 1987 to 22 today. Similar to traffic zones, as new master plans and sector plans are adopted, traffic patterns change, more transit is provided, and as more Metrorail station areas become policy areas, new policy areas may need to be created and current boundaries may need to shift. Council should review periodically the listing of policy areas in effect and the maps depicting their boundaries (Map 1, Map 2, Map 3, and Map 4).
- **Policy Area Transportation Review Methodology.** The AGP says that "through the use of a computerized traffic simulation model, the Planning staff has computed a balanced relationship between a programmed set of transportation facilities and a geographical pattern of jobs and housing units...Through a process of repetitive trial and error, this land use pattern has been modified so that it produces a traffic volume and distribution that is equivalent to the average level of service standard." Since transportation modeling is an evolving art and because Council will probably want to review this directive periodically, this element should not be codified.
- **Level of service categories (Groups) and quantifying the relationship between transit availability and the average level of service standard.** Between 1987 and 1992, there has been one new level of service category, Group VI, created to make the AGP more sensitive to the presence of transit, ridesharing, and non-motorized transportation. Increasing the number of groups beyond 6 has been studied over the years and is once again being reviewed for the FY94 AGP. Over the years, Chart I has been expanded and quantified to show better the relationship between transit availability and the average level of service standard. Further changes may be needed in the future as transportation improvements are made.
- **Silver Spring.** In the fall of 1987 when the Council amended the Silver Spring Sector Plan, the Council also amended the FY 88 AGP to establish separate development controls for the Silver Spring Central Business District. These controls have been in effect since then. When a new sector plan is approved for the Silver Spring CBD, these controls may need to be changed. Thus, these controls should not be codified or reviewed annually.

b. *Local Area Transportation Review*

- **Potomac.** In 1989, the Council amended the FY 90 AGP to increase the number of intersections which should be subject to LATR. Because the inclusion of these intersections depend in part on the recommendations in the Potomac area master plan, they should not be codified. They also do not need annual review. These intersections could either be reviewed periodically and/or included in the Planning Board's administrative guidelines for Local Area Transportation Review.
- **Silver Spring.** The AGP provides for a LATR test in Silver Spring which is somewhat different than the test that is used elsewhere in the County. This test is based on the recommendations of the Silver Spring Sector Plan. Since an amendment to the Silver Spring Sector Plan currently is in process, the LATR guidelines for Silver Spring should be reviewed by Council after the plan is amended and included in the Planning Board's administrative guidelines for LATR.
- **Friendship Heights.** In 1989 in the FY 90 AGP, Council added a directive on Friendship Heights which stated that "any traffic trips from approved and/or built projects on certain properties in the District of Columbia which exceed the total... shall not be counted in making a determination that local intersections are operating at adequate levels of service." This directive is supposed to stay in effect until a new sector plan is approved by the Council. Thus, this directive does not need annual review, but it also should not be codified, since it will not be needed when a new sector plan is adopted. It could be reviewed periodically by Council and/or added to the Planning Board's administrative guidelines for LATR.
- **Level of service standard for LATR.** The AGP provides for three LOS standards for LATR depending on the availability and accessibility of transit. These standards are tied directly to the LOS standards for Policy Area Transportation Review. If changes are made to the policy area standards, then changes also may be needed for the local area standards.
- **Local Area Review Transportation Improvement (LARTI) Program.** This new program was added to the FY93 AGP. The LARTI program provides funds for housing projects to help finance off- site improvements required by the Local Area Transportation Review test. Since this is a pilot program, it should be reviewed periodically before it is decided if it can be codified or included in the Planning Board's LATR administrative guidelines.

c. *Special Ceiling Allocations*

- **Affordable housing.** The Council should periodically review the special ceiling allocation for affordable housing and health care facilities to make sure that the number of projects, their locations

and traffic impacts, and the guidelines controlling their approval are not causing problems. The affordable housing provision has been changed often since it was first added as an amendment to the Annual Growth Policy in 1988.

- **Health care facilities.** Similar to the special ceiling allocation for affordable housing, the Council should periodically review the special ceiling allocation for health care facilities to make sure that the number of projects, their locations and traffic impacts, and the guidelines controlling their approval are not causing problems. This provision was added to the FY 91 AGP in 1990 and has been used only once.

d. *Ceiling Flexibility for Developer Participation Projects*

- **Ceiling flexibility for partial-cost developer participation.** Similar to the special ceiling allocations, this provision of the County's growth management program should be reviewed periodically to make sure that it is not causing problems. Since this provision has not yet been used and put to the test, it is difficult to know whether its guidelines can work smoothly.

e. *Timely Adequate Public Facilities Determination and Local Area Transportation Review Under Chapter 8 - Buildings*

- **Traffic Mitigation Goals.** Council added this provision to the AGP in 1990 after adopting Bill 25-89 (the loophole bill) which required a local area transportation review of lots which were recorded prior to 1982. This provision deals with traffic mitigation goals and will not be needed after July 1, 2001 when loophole properties will be subject to the same adequate public facilities tests as all other properties.

f. *Public School Facilities*

- **Public Schools Test.** The detailed methodology for testing the adequacy of public schools was added to the AGP in 1988 after it had been studied for more than one year. The test has remained basically the same since then, although the Education Committee is reviewing the methodology this year to determine if changes may be needed. Depending on the committee's findings, it may be necessary to schedule periodic reviews of the schools test.

3. **Elements Which Could Be Codified**

Many elements of the AGP already are codified in the Adequate Public Facilities Ordinance (APFO), Chapter 50-35 k of the Subdivision Ordinance. The APFO states that "A preliminary plan of subdivision must not be approved unless the Planning Board determines that public facilities will be adequate to support and service the area of the proposed subdivision." It defines the public facilities and services to be examined as "roads and public transportation

facilities, sewerage and water service, schools, police stations, firehouses, and health clinics."

The consultant report recommended that "Much of the material currently contained in Montgomery County's Annual Growth Policy should be contained in a basic growth management ordinance that continues in effect from year to year. All of the definitions and procedural provisions and many of the "Guidelines for Administration" should be included in that basic ordinance." The following is a list of AGP elements which staff believes could be added to the APFO. Many of these elements have remained the same as they were when the first AGP was adopted in 1987. Those elements which already are incorporated in the APFO are noted.

a. *Policy Area Transportation Review*

Many components of Policy Area Transportation Review could be incorporated in the APFO. These include:

- **Staging ceiling.** The definition of staging ceiling as being the "maximum amount of land development that can be accommodated by the existing and programmed public facilities serving the area, at an assigned level of service standard." This definition has remained the same since the first AGP was adopted by the Council in 1987.
- **Purpose.** The purpose of Policy Area Transportation Review is "to place the individual subdivision within the context of a comprehensive, countywide assessment, which takes account of, and properly allows for, the upstream and downstream traffic impacts of development in various geographic areas." This definition has remained the same since the first AGP was adopted by the Council in 1987.
- **Level of service standard.** The definition of level of service standard as being "a statistical average over the whole policy area." This definition has remained the same since the first AGP was adopted by the Council in 1987, although it is being reevaluated this year.
- **Policy on overall level of service standard.** The policy that it is appropriate to permit greater congestion to occur in areas in which greater transit availability provides an alternative mode of travel for many travelers in the area. This policy has been in effect since the first AGP was adopted in 1987.
- **Pipeline.** The definition of the pipeline as being, "previously approved preliminary plans." The APFO already defines the pipeline as "all approved subdivisions." This definition has remained the same since the first AGP was adopted.
- **Eligible CIP projects.** The definition of "eligible programmed transportation CIP projects" as being those projects with 100 percent of the expenditures estimated to occur in the first four

- **Eligible CIP projects.** The definition of "eligible programmed transportation CIP projects" as being those projects with 100 percent of the expenditures estimated to occur in the first four years. For the most part, this definition already is provided in the APFO. Some modification is needed in the APFO to include projects from the cities of Rockville and Gaithersburg and to define better programmed public bus, rail, or other public or private form of mass transportation. Currently, the APFO does not include any time frame for programming transit projects. Although the Council has considered changing the definition of eligible CIP projects to include projects which are 100 percent funded in the fifth or sixth year, it has not done so.
- **Full-Cost Developer Participation.** The provision allowing the Planning Board to approve a subdivision if the applicant agrees to pay for the full cost of all the additional necessary public facilities. This provision is basically the same as it was in the first AGP.
- **De Minimis Impacts.** The provision allowing the Planning Board to approve up to five trips in policy areas where there is no ceiling balance. The De Minimis rule has remained the same since 1987.
- **Amendment of Policy Ceilings.** The provision that staging ceilings may be amended by the Council to reflect changing conditions such as additions to the CIP or CTP, changing patterns of public facility usage, or other relevant criteria. The procedures for amending ceilings have remained the same since the first AGP was adopted.
- **Queue Rules - Allocation of Staging Ceiling to Preliminary Plans of Subdivision.** Although the AGP always has included rules for allocating capacity to pending subdivisions, these rules were changed substantially in the FY 90 AGP. These rules could be codified in the APFO or added to the Planning Board's Subdivision Guidelines.

b. Local Area Transportation Review

Similar to Policy Area Transportation Review, many elements of Local Area Transportation Review (LATR) could be incorporated in the APFO. These are:

- **50 or more peak hour trips.** Since the first AGP was adopted, LATR has been required of all subdivisions generating more than 50 trips.
- **Eligible programmed transportation projects.** For LATR purposes projects to be considered are those included in the most recent edition of the Approved Road Program. This requirement has stayed the same since the first AGP was adopted. The APFO already states that "additional roads identified on the Approved Road Program published by the County Executive" may be counted for LATR and defines the Approved Road Program.

c. *Public School Facilities*

- **Purpose.** The purpose of the schools test is "to reflect the ability of the public school system to accommodate students from new development. This definition has remained the same since the first AGP was adopted in 1987.

d. *Water and Sewerage Facilities*

The AGP guidelines concerning water and sewerage facilities have remained exactly the same as they were in 1987. For the most part, these guidelines already are included in the APFO.

e. *Police, Fire, and Health Services*

The AGP guidelines concerning police, fire, and health services have stayed largely the same since 1987, with only a few minor word changes such as replacing the word "will" with "shall." The APFO would need to be amended to incorporate these guidelines.

f. *Resubdivisions*

The AGP guidelines concerning resubdivision have stayed exactly the same since 1987. These could be codified in the APFO or included as administrative procedures in the Planning Board's Subdivision Guidelines.

g. *APFO Administration*

The AGP states that "the administration of the Adequate Public Facilities Ordinance shall at all times be consistent with adopted master plans and sector plans." It requires that development staging in master plans and sector plans shall be used to the "extent that they are more restrictive." This component of the AGP could be codified. The listing of specific plans which are more restrictive should not be codified, however, because this list will change as plans are amended.

C. **CONCLUSIONS**

Currently the APFO states "periodically the District Council will establish by resolution, after public hearing, guidelines for the determination of the adequacy of public facilities and services. An Annual Growth Policy approved by the County Council may serve this purpose if it contains those guidelines." Staff believes that after six years of experience with the AGP, it is no longer necessary for the Council to annually adopt a resolution with growth management guidelines. As indicated above, many elements of the AGP could be codified or reviewed periodically.

Staff recommends that the Annual Growth Policy and the Adequate Public Facilities Ordinance be revised along the lines of the preceding discussion. The public forum in November and the Council's public hearing in February will allow interested parties to share their views to help direct these process changes. In June of 1993, the Council can direct the Planning Board and the Executive how it wants to proceed with such changes for the FY95 AGP.

Chapter 4

FY 94 Staging Ceiling Recommendations

IV. TRANSPORTATION STAGING CEILING RECOMMENDATIONS AND PUBLIC SCHOOL CAPACITIES

The two primary tests for Adequacy of Public Facilities are Transportation and Public Schools. In practice, other public facilities have been found to be adequate for purposes of development regulation. In the past decade, the main constraint on development has been the Transportation Test, as administered in both Policy Area and Local Area Review. In FY93 the adequacy of school facilities became an AGP issue for the first time.

For the FY94 Annual Growth Policy, five new road projects can be counted: widening I-270 from Father Hurley Boulevard to MD 121, widening New Hampshire Avenue from Randolph Road to MD 198, widening MD 108 in Olney, the construction of the Norbeck-Spencerville connector, and widening the I-270 East and West Spurs. For these projects staff is recommending the following transportation staging ceiling increments with the anticipated fully funded FY 97 road network:

POLICY AREA	HOUSES	JOBS
-----	-----	-----
Cloverly	1500	300
Fairland/ White Oak	250	0
Germantown East	750	500
Germantown West	250	250
Olney	1000	1000

Staging ceiling recommendations for North Bethesda due to the widening of the I-270 East and West Spurs are pending a Staging Amendment to the Master Plan.

These recommendations would lift the jobs moratoria in Cloverly, Germantown East, and Olney. They would also lift the housing moratorium in Olney. Other projects would be needed to eliminate the deficit for both jobs and housing in Fairland/White Oak and Germantown West, and housing in Cloverly.

1. TRANSPORTATION STAGING CEILINGS

Transportation staging ceilings establish how much development capacity can be permitted in a particular policy area without exceeding that area's standards for roadway congestion. Each infrastructure capacity increase provides additional staging ceiling, although the amount of additional ceiling depends in large part on background land use and transportation network conditions. To the extent possible, an attempt has been made to associate specific staging ceiling increments with specific road improvements to help guide the Capital Improvements Programming process.

Staging ceilings are set for both housing units and jobs. There is no general rule for the tradeoff between housing and jobs, which depends very much upon local conditions. Countywide there is approximately 1 job for every resident worker, or 1.5 jobs per household. This does not imply that there is a local balance everywhere, nor that every resident worker is employed in the county. However, areas with better balance between jobs and housing units can accommodate more development at the same congestion standard than areas which are

largely imbalanced as the road system usage is less peaked. Roads in areas with a great deal of housing and few jobs will generally be able to accommodate more than 1.5 additional local jobs for every housing unit. Likewise, roads in employment centers can handle more than 1 additional local housing unit for every 1.5 jobs. This is because a worker living among more employment opportunities than the typical resident, such as in a CBD, will have shorter than average trip lengths, and thus have less impact on the road network. Similarly, a job located in a sea of housing will more likely draw a nearby worker who will have a shorter than average commuting distance, with less impact on the road network.

A. Current FY93 Transportation Staging Ceilings

The FY93 adopted ceilings provide positive net remaining capacity in twelve policy areas for housing and nine policy areas for jobs. As of June, 1992, there is remaining staging ceiling capacity for 18,246 housing units and 19,163 jobs. Nine policy areas have negative net remaining capacity for housing and twelve have negative net remaining capacity for jobs. Germantown Town Center has zero net remaining capacity for jobs and housing pending the adoption of the recommendations in the revised Germantown Town Center Staging Analysis. Staging ceilings are set at the zoning holding capacity for the rural Group I areas of Clarksburg, Darnestown/Travilah, Poolesville, Goshen, Patuxent, and Upper Rock Creek. It is expected that water and sewer service and Local Area Transportation Review constrain development in the Group I areas.

Since the Council adopted the FY93 AGP, no new policy areas have entered a jobs or housing subdivision moratorium. The following lists those policy areas in a subdivision moratorium and those areas where there is a positive net remaining under FY93 staging ceilings.

Policy Areas Under FY93 Transportation Staging Ceilings (Pipeline as of September, 1992)

Housing Moratorium

Aspen Hill
Cloverly
Damascus
Fairland/White Oak
Germantown West
Germantown Town Center
Montgomery Village/Airpark
North Potomac
Olney
R & D Village

Jobs Moratorium

Cloverly
Derwood/Needwood
Fairland/White Oak
Gaithersburg City
Germantown East
Germantown West
Germantown Town Center
Montgomery Village/Airpark
North Bethesda
North Potomac
Olney
R & D Village
Rockville City

Policy Areas
Under FY93 Transportation Staging Ceilings
(Pipeline as of September, 1992)

Positive Housing Ceiling

Bethesda CBD
Bethesda Chevy Chase
Derwood/Needwood
Gaithersburg City
Germantown East
Kensington/Wheaton
North Bethesda
Potomac
Rockville City
Silver Spring CBD
Silver Spring/Takoma Park
Wheaton CBD
Group I (Rural) Areas

Positive Jobs Ceiling

Aspen Hill
Bethesda CBD
Bethesda/Chevy Chase
Damascus
Kensington/Wheaton
Potomac
Silver Spring CBD
Silver Spring/Takoma Park
Wheaton CBD
Group I (Rural) Areas

In addition to the adopted staging ceiling, two other projects were potentially eligible for staging ceiling purposes in the FY93 Annual Growth Policy, but, pending certainty in the draft State Consolidated Transportation Program, decisions on both were deferred. The first, the I-270 East and West Spurs widening in North Bethesda will be considered in the Staging Amendment to the North Bethesda Master Plan. This project, which would widen I-270 East Spur to six lanes from the Y-Split to the ramp at Rockville Pike, and the West Spur from the Y-Split to the Beltway, will be tested in more depth as part of the North Bethesda Staging Analysis. It should be noted that this project may be open only to High Occupancy Vehicle Traffic. Allocation of additional capacity to North Bethesda Metro Station areas of Grosvenor, White Flint, and Twinbrook and to the rest of North Bethesda will be recommended by January of 1993, for adoption with the FY94 AGP. It is possible that the jobs moratorium in North Bethesda, resulting in large part from loophole properties in the Rock Spring Park area, would be lifted by the recommendations associated with these improvements.

The second project is the US 29 Bridge over New Hampshire Avenue (MD 650). This bridge widening completes the US 29 project, providing six through lanes of traffic (three in each direction) from just south of the Howard County line at MD 198 to Silver Spring. The widening relieves a bottleneck and increases effective roadway capacity. Though the project was discussed during the Council adoption of the FY93 AGP in June of 1992, there was uncertainty in the funding at that time. For that reason, the County Council authorized the Planning Board in the Adopted FY93 Annual Growth Policy to:

"administratively adjust the staging ceiling for jobs in the Fairland/White Oak policy area by adding 1,000 jobs when the widening of US 29 over New Hampshire Avenue is published in the Draft State Consolidated Transportation Program as being completed by the end of FY 1996."

Since the draft State program shows this project being completed before FY96, it is recommended that the Planning Board administratively adjust the FY93 staging ceiling in Fairland/White Oak by a positive 1000 jobs. Fairland/White Oak will remain in a moratorium for new subdivision approvals for both houses and jobs. This adjustment is shown in the Staging Tables at the end of this Chapter for FY93.

B. Recommended FY94 Transportation Staging Ceilings

The recommended staging ceilings for FY94 have been developed within a framework comparable with those for the adopted FY92 and FY93 Annual Growth Policies. There are no changes in Level of Service standards, methods for measuring Level of Service, or assumptions in the analysis. The key difference is the inclusion of several road projects that are anticipated to be fully funded within the FY94-97 period which were not 100% funded previously. Should the Planning Board or County Council decide to evaluate an alternative methodology for measuring or evaluating the adequacy of transportation facilities, Planning Department Staff would need to revise these recommendations in light of the alternate methodology.

The recommended ceilings are based on transportation projects which have 100 percent of their construction expenditures programmed within the first five years of the approved FY93-98 CIP, the FY92-97 CTP and the Rockville CIP. This scenario assumes all transportation projects in the CIP and CTP stay on their approved schedule, moving projects in the fifth year of the current programs into the fourth year of the new fiscal year's program. In addition, due to changes in funding underlying the CTP, some new projects have been anticipated from draft schedules made available by MDDOT.

The following roadway construction projects increase the recommended FY94 transportation staging ceilings above those adopted in FY93:

- **Norbeck - Spencerville Connector.** This CIP road project connects Norbeck Road (MD 28) with Spencerville Road (MD 198). It is being constructed as a two lane road by Montgomery County rather than the State of Maryland as previously anticipated. This road completes a missing link in the local East-West roadway network, providing improved circulation and some increase in overall traffic capacity in the area. Along with the New Hampshire Avenue Improvement, mobility in Cloverly and Olney can be expected to be greatly enhanced. The recommended ceilings for Olney are discussed with the MD 108 improvement below.
- **New Hampshire Avenue (MD 650) from East Randolph Road to MD 198.** This road was deferred from the State's CTP in 1991, but is in the draft CTP as being completed within four years. This project would reduce current congestion on New Hampshire Avenue by widening to six lanes the section from East Randolph Road to the Inter-County Connector and from two to four lanes from the ICC to MD 198 (Spencerville Road). The intersection of Briggs Chaney Road, Norwood Road and New Hampshire Avenue will be realigned. In addition, this road provides some reduction in traffic along the Layhill Road (MD 182)/Georgia Avenue (MD 97) corridor.

Because of the MD 650 widening and the Norbeck-Spencerville connector improvements described above, an increase in the staging ceiling in Cloverly by 1500 housing units and 300 jobs is recommended. The resulting gross staging ceiling number (base + staging ceiling) is essentially equal to the holding capacity for jobs in Cloverly (estimated at over 800 jobs). The nature of employment in Cloverly is primarily retail with some small office uses. Cloverly will likely have positive net remaining capacity for jobs if these recommendations are adopted. Cloverly will remain in moratorium for new subdivision approvals for housing.

The portion of the New Hampshire Avenue project south of the ICC is located in the Fairland/White Oak policy area. Because of this project, it is recommended that the staging ceiling in Fairland/White Oak be increased by 250 housing units. Fairland/White Oak will remain in a moratorium for subdivision approvals for both houses and jobs.

The restrictions against additional exceptions for affordable housing will remain in effect in Fairland/White Oak. This is because Fairland/White Oak has been in moratorium for more than 4 consecutive years, is more than -2000 housing units in deficit, and the Planning Board has cumulatively approved more than 500 housing units under this special ceiling allocation. The additional 250 housing units recommended do not reopen the Affordable Housing exemption to the Policy Area Review Test.

- I-270 from Clarksburg Road (MD 121) to Father Hurley Boulevard. This project was tested as a standard freeway section, open to all traffic, although it may be operated as an High Occupancy Vehicle (HOV) facility when it opens. The issue of counting freeways was discussed in the Issues section of this report (Issue 5a). Should a policy decision on the treatment of HOV and the counting of freeways be reached different from these assumptions, the Planning Department recommendation would change. By adding capacity to this congested freeway section, traffic from the Damascus area and points north may find it easier to use MD 121 to access I-270, thus removing some traffic that would otherwise use sections of MD 27 into Germantown East. In addition, traffic from Clarksburg and Frederick County will spend less time in congested conditions. In particular, the use of MD 355 as an alternate for I-270 will decline somewhat, improving conditions in Germantown East. Conditions improve less in Germantown West as traffic patterns shift to utilize the capacity on I-270. For this reason, larger staging ceiling increments in Germantown East are recommended to be associated with this project.

Because of the increased transportation capacity serving Germantown East resulting from the I-270 widening, it is recommended to increase the staging ceiling by 750 housing units and 500 jobs. Germantown East will have positive net remaining staging ceiling for both houses and jobs if these recommendations are adopted. Currently Germantown East has a deficit in jobs staging ceilings.

In addition, Germantown West staging ceilings are recommended to be adjusted positively by 250 housing units and 250 jobs. Germantown West will remain in moratorium for new subdivision approvals for both jobs and houses. The Germantown Town Center Staging Analysis published by the Planning Board in February 1992 provided one means for eliminating the moratorium in Germantown West and Germantown Town Center. As noted in the Issues section, a report presenting additional options will come before the Board and the Council later in 1992. This will present other alternatives for relieving the moratorium.

- MD 108 from Dr. Bird Road to Olney Mill Road. This project reduces congestion and improves safety in Olney by widening Laytonsville Road/Olney-Sandy Spring Road (MD 108) from two to four lanes from Dr. Bird Road to Prince Philip Drive and from Headwaters Lane to Olney Mill Road. Improvements at the intersection of MD 108 and Georgia Avenue (MD 97) have already been constructed.

Due to the MD 108 widening and related traffic impacts resulting from the other nearby network improvements of the Norbeck-Spencerville connector and New Hampshire Avenue, it is now recommended that staging ceilings in Olney be increased by 1000 housing units and 1000 jobs.

The resulting gross staging ceiling number (base + staging ceiling) is near to the estimated holding capacity for jobs in Olney of over 6,900 jobs. Most employment in Olney is retail, professional office, and that at Montgomery General Hospital. Olney will have positive net remaining staging ceiling for both houses and jobs if these recommendations are adopted.

Summary

In summary, the tables on the following page show which policy areas would be in moratorium and which would have positive net remaining capacity if the recommended staging ceilings were adopted.

Policy Areas
Under Recommended FY94 Transportation Staging Ceilings
(Pipeline as of September, 1992)

Housing Moratorium

Aspen Hill
Cloverly
Damascus
Fairland/White Oak
Germantown West (?)
Germantown Town Center (?)
Montgomery Village/Airpark
North Potomac
R & D Village

Jobs Moratorium

Derwood/Needwood
Fairland/White Oak
Gaithersburg City
Germantown West (?)
Germantown Town Center (?)
Montgomery Village/Airpark
North Bethesda (?)
North Potomac
R & D Village
Rockville City

(?) indicates that moratorium depends on potential Council action on the pending revised Germantown Town Center Staging Analysis and the forthcoming Staging Amendment to the North Bethesda Master Plan

Positive Housing Ceiling

Bethesda CBD
Bethesda Chevy Chase
Derwood/Needwood
Gaithersburg City
Germantown East
Kensington/Wheaton
North Bethesda
Olney
Potomac
Rockville City
Silver Spring CBD
Silver Spring/Takoma Park
Wheaton CBD
Group I (Rural) Areas

Positive Jobs Ceiling

Aspen Hill
Bethesda CBD
Bethesda/Chevy Chase
Cloverly
Damascus
Germantown East
Kensington/Wheaton
Olney
Potomac
Silver Spring CBD
Silver Spring/Takoma Park
Wheaton CBD
Group I (Rural) Areas

D. Policy Areas Subject to Moratorium on New Subdivisions

The Planning staff would like to direct the Planning Board and Council's attention to the fact that a number of policy areas are, and have been, more congested than their adopted transportation level of service standards for a number of years.

Tables 13 and 14 at the end of this chapter show how the net remaining staging ceiling capacity has varied by policy area over the past decade. These tables reveal that several policy areas have been subject to tight restrictions on new subdivision approvals for either jobs or housing for a number of years due to inadequate transportation capacity. For example, Cloverly has been subject to a subdivision moratorium for housing continuously since the first

Comprehensive Planning Policies ceilings were established in 1982. Fairland/White Oak has been subject to a subdivision moratorium for both jobs and housing since 1986.

When a policy area has a negative net remaining capacity, this area will be subject to more traffic congestion than is deemed acceptable, given the alternatives to the automobile offered to residents and workers in that policy area and the full development of each of the approved subdivisions.

Areas with negative net remaining capacity are not completely closed to new subdivision activity. New development in these areas can receive new subdivision approval only by taking measures to reduce as many peak hour automobile trips in the area as their development is anticipated to add, unless one of several special ceiling exceptions can be granted.

Tables 11 and 12 at the end of this chapter show the number of new development approvals that have been granted in subdivision moratorium areas between June 27, 1991 and September 24, 1992. These total 1,804 housing units and 9,824 jobs County-wide. Of these subdivisions approved as special ceiling exceptions, 49 percent of the houses and 77 percent of the jobs were approved on the basis of developer participation agreements in which developers paid part or all of the costs of new transportation infrastructure to accommodate their development.

There are various factors that have led to the large negative net remaining capacities in different policy areas. In some areas, transportation improvements that were programmed in the CIP have slipped behind schedule after being counted as available for subdivision approvals. After subdivisions were approved on the basis of the improvement, slippage in the CIP or changes in the criteria for counting CIP projects as available to support subdivision approvals has forced a reduction in the staging ceiling. In some areas, changes in the policy area boundaries or the level of service standard have resulted in the reassessment of the policy area staging ceilings.

Regardless of the factors leading to these negative net remaining staging ceiling capacities, Planning staff recommend that the Council give these areas priority for transportation improvements in upcoming capital and operating budgets to demonstrate the County's commitment to providing adequate public facilities to support planned growth.

E. Potential Improvements to Provide Additional Development Capacity, by Policy Area

There are three ways in which subdivision moratoria can be alleviated. These are:

- Program additional road or transit improvements for 100 percent funding within the first four years of the County, State, or city CIPs. This can result in improvement of the average area wide highway level of service through increased road capacity;

- Program facilities and services that would significantly improve various characteristics of transit availability and use to change an area's level of service group. These improvements could include better transit coverage, frequency, and accessibility (with initiatives such as expanded bus or rail service, sidewalk and bike path construction, and park-and-ride and bike-and-ride facility improvements) and the implementation of policies that influence the non-automobile driver mode share for residents or workers in the area. Under the County's AGP, more traffic congestion is considered acceptable where there is a greater availability and use of non-automobile driver modes of transportation; and/or
- Change the level of service standards to accept more congestion.

The following section identifies various alternative transportation improvements that, if funded, would address the subdivision moratoria in one or more policy areas. In recognition of current and projected fiscal constraints, this section also includes the Planning Department's priority recommendations to the Montgomery County Department of Transportation for projects that would raise a policy area's ceiling. Other projects mentioned are important, but funding will not likely be available for many of them in the near-term.

ASPEN HILL

Transit Level of Service: *Group III*

Moratorium for: *Housing*

Moratorium due to: *Existing Base of Development*

Aspen Hill is in moratorium for housing because its existing base of development causes the area's level of service to be more congested than its current Group III LOS standard.

Background: Aspen Hill's location between the I-270 and the I-95 development corridors makes the policy area susceptible to cross-county traffic. Its moderate level of transit service qualifies it as a Group III area. Aspen Hill is well served by buses and residents can use park-and-ride spaces at Aspen Hill Shopping Center, the Wheaton and Twinbrook Metro stations and the programmed garage at Glenmont. Aspen Hill has a moderate supply of sidewalks, limited bicycle paths, and no secure bicycle parking serving transit.

Auto/Transit Usage: Six out of seven work trips made by Aspen Hill residents are made by driving a car. Two-thirds of the access to Metro from this policy area is by automobile, with most of the rest by feeder bus.

Potential for Change in Group Status: Group IV status for Aspen Hill would likely result in net remaining capacity becoming positive once again. For this to happen, a variety of improvements would be needed, most notably in accessibility: sidewalks on major state roads and bicycle paths connecting residents to activity centers and transit stations and stops. Also required: more frequent bus

service, more bus stop shelters, and the implementation of traffic demand management measures to boost use of modes other than the automobile.

This year, the Planning Department recommended to the Montgomery County Department of Transportation that it include in its CIP a program to identify and effect improvements to facilitate access to transit stations. It was one of the two highest priority new projects recommended by the Planning Department this year.

BETHESDA/CHEVY CHASE (including BETHESDA CBD)

Transit Level of Service: *Group V*
Not in Moratorium

Background: Bethesda/Chevy Chase's transit service coverage is very good (nearly nine out of ten households are within walking distance of transit). Bus frequency is good and Metrorail frequency is very good at the three stations in the area. There is a good supply of sidewalks but outside the CBDs, sidewalks are very narrow along major roads. Bicycle paths and lanes are limited, as is secure bicycle parking serving transit. There is a moderate supply of park-and-ride spaces (primarily in public garages in Bethesda and private garages in Bethesda and Friendship Heights).

Auto/Transit Usage: Roughly seven out of ten work trips both to and from Bethesda/Chevy Chase are made by car. The majority of Metrorail users arrive by foot, with the rest evenly split between feeder bus and automobile.

Potential for Change in Group Status: Modest improvements in accessibility (especially in the provision of bicycle paths accessing activity centers, shopping centers, and nearby transit stations), improvements in bus frequency, and traffic demand management measures to boost use of modes other than the automobile, could help reduce traffic congestion in Bethesda/Chevy Chase.

CLOVERLY

Transit Level of Service: *Group II*
Moratorium for: *Housing*
Moratorium due to: *Existing Base of Development*

Cloverly is in moratorium for housing because its existing base of development causes the area's level of service to be more congested than its Group II standard. This area has been in moratorium for new subdivisions that produce housing since 1982 when the Planning Board first adopted the Comprehensive Planning Policies Report.

Background: Cloverly has limited bus service, no rail service, and marginal pedestrian and bicycle accessibility to transit, shopping, or employment. Few subdivision streets have sidewalks and these are not well connected, as most major roads in the area lack sidewalks. There are a few bikeways in the area, but no secure bicycle parking spaces serving transit access. Less than half of Cloverly's residents live within walking distance of transit, but they do have

access to a limited number of park-and-ride spaces at Wheaton and Silver Spring.

Auto/Transit Usage: Nearly nine out of ten work trips to and from Cloverly are made by driving a car. The few Metro users who reside in Cloverly use automobiles for access to transit, many using the park-and-ride lots in the Fairland/White Oak area.

Potential for Change in Group Status: Substantial improvements in bus service frequency, coverage, and accessibility, along with traffic demand management measures could enable Cloverly to become a Group III policy area. This year, one of the Planning Department's highest priority new projects recommended for inclusion in the CIP is a program to identify and effect improvements to facilitate access to transit stations. Cloverly is currently under study by the Planning Department as part of the Eastern Montgomery County Master Plan.

DAMASCUS

Transit Level of Service: *Group II*

Moratorium for: *Housing*

Moratorium due to: *Existing Base of Development*

Background: The base level of housing units in Damascus causes this area's congestion to exceed its current Group II LOS standard, so that the area is currently in moratorium for new subdivisions that produce households.

The Damascus area has a moderate level of transit service coverage, with about half of households within walking distance of transit. However, that transit service is marginal in terms of its frequency, averaging less than two buses per AM peak hour on the routes in the area. There is no rail service in the area, but limited frequency MARC service can be in Germantown West and a moderate level of Metro service is at the more distant Shady Grove station.

Auto/Transit Usage: Almost nine out of ten work trips to and from Damascus are made by driving a car. About half of the Metro users who reside in Damascus use automobiles for access to transit and the others use feeder buses.

Potential for Change in Group Status: Damascus could become a Group III Area only through substantial improvements in transit accessibility (especially sidewalks and bicycle access to transit routes), provision of more frequent bus transit services, and traffic demand management measures to boost use of non-auto modes.

Improved pedestrian access would consist of sidewalks on both sides of the street on all major roads and along smaller roads near the Damascus town center, and on at least one side of the street along most other roads in the area. There are currently no bicycle paths or lanes in Damascus. The Montgomery County Bikeway Plan suggests a bikeway going north from Germantown and the Great Seneca Park towards Damascus through Magruder Branch Park.

One of the Planning Department's recommended highest priority CIP projects is the extension of MD 124 Phase II, which is currently programmed for beyond the six-year period. Another, which would improve Sweepstakes Road (Cutsail Drive

to 700 feet east of Stowbarn Lane), has been delayed until FY95 due to fiscal constraints. These projects would raise the ceiling in this area.

DERWOOD/NEEDWOOD/WASHINGTON GROVE/SHADY GROVE

Transit Level of Service: *Group III*

Moratorium for: *Jobs*

Moratorium due to: *Pipeline Plus Existing Base of Development*

Derwood/Needwood is currently in moratorium for jobs because approved development, when added to the existing base, causes the area's transportation level of service to be more congested than its Group III standard.

Background: About two-thirds of the area's households and three-fourths of the area's jobs are within walking distance of transit. Bus frequency is good, Metrorail service at the Shady Grove station is moderate, and commuter rail service is available at Washington Grove and nearby at the Rockville station. While the number of parking spaces in the park-and-ride lots and garage at the Shady Grove station is greater than at any other station in the Washington area, these spaces are also used by the entire upcounty area as well as by residents from Frederick, Carroll, and Howard counties. Sidewalks and bikeways are not well connected to the Metro station, shopping areas, or employment and there is a poor number of secure bicycle parking spaces at the Shady Grove Metro station.

Auto/Transit Usage: Almost seven out of eight work trips to and from Derwood/Needwood are made by driving a car. About three quarters of Metro users who reside in this area use automobiles for access to transit, although feeder buses account for a modest share of access as well.

Potential for Change in Group Status: This area could become Group IV area with more frequent rail service on MARC and/or Metro, improvements in pedestrian and bicycle access to transit stations, employment, and shopping, and traffic demand measures to increase the non-automobile driver mode share.

This year, one of the Planning Department's highest priority new projects recommended for inclusion into the CIP is a program to identify and effect improvements to facilitate access to transit stations.

In the longer run, the Corridor Cities transit project is expected to provide substantial additional staging ceiling capacity in this area, as is the Intercounty Connector project.

FAIRLAND/WHITE OAK

Transit Level of Service: *Group III*

Moratorium for: *Jobs and Housing*

Moratorium due to: *Existing Base of Development*

Fairland/White Oak is in moratorium for both jobs and housing because the existing base of residential and non-residential development causes this area to exceed its current Group III LOS standard.

Background: Transit service coverage in the Fairland/White Oak area is moderate and frequency is good. The area is not served by rail, although some residents do use the Silver Spring or Wheaton Metro stations. There is an extensive supply of park-and-ride lots within the area and at Metro stations in adjacent areas. Fairland/White Oak has a moderate supply of sidewalks, bicycle paths and lanes, but conditions for crossing major roads are often poor for both pedestrians and cyclists. There are no secure bicycle parking spaces serving transit access.

Auto/Transit Usage: Five out of six work trips by Fairland/White Oak residents are made by driving a car. Six out of seven work trips by area workers are made by driving a car. Almost half of the access to Metro in this policy area is by automobile, with most of the rest by feeder bus.

Potential for Change in Group Status: Key among the improvements needed to raise the area to Group IV status would be frequent express bus service to and from the Silver Spring Metrorail station. Expanded local circulation bus service coupled with improved sidewalks and bicycle facilities along major roads would also enhance access to activity centers, contributing to a Group IV status.

Traffic demand management measures to boost the non-automobile driver mode share in this area would also facilitate somewhat higher staging ceilings in the Wheaton and Silver Spring CBD areas, which are currently restrained, in part, by upstream traffic from Fairland/White Oak.

There are a number of highway projects that would address the subdivision moratoria, including the reprogramming of the New Hampshire Avenue project and Phase II of the widening of Briggs Chaney Road. The Planning Department also believes the following policy area projects should be priorities for the County: Old Columbia Pike Reconstruction, East Randolph Road Phases I and II, Robey Road, Briggs Chaney Road Realignment East, and Fairland Road East.

In the long run, improvements such as the Intercounty Connector, grade separation of US 29 at MD 193, and priority treatment for transit vehicles in the US 29 corridor would also provide additional staging ceiling in this area.

Fairland/White Oak is currently under study as part of the Western Montgomery County Master Plan. Separate plans for Fairland and White Oak are being undertaken.

CITY OF GAITHERSBURG

Transit Level of Service: *Group III*

Level of Service Exceeded, is Not Subject to County Review

The base plus a large pipeline of approved development in Gaithersburg City causes this area to exceed its current Group III LOS standard. However, the City of Gaithersburg does not administer the AGP or the APFO in its review of proposed development, so the area is not in moratorium.

Background: Gaithersburg has a moderate level of bus service, three MARC trains at two stations in the AM peak hour, and frequent Metrorail service in an

adjacent policy area at the Shady Grove Metro station. Although nearly nine out of ten households are within walking distance of transit, the primary method of transit access is the automobile. Sidewalks are not well connected to the MARC or Metro stations or to shopping and employment areas and are lacking on many major roads. The area has bikeways, but there is a poor level of secure bicycle parking at transit stations. Park-and-ride service is very good at the two MARC stations and Lake Forest Mall, as well as some at the Shady Grove Metro station.

Auto/Transit Usage: About five out of six work trips made by Gaithersburg residents are made by driving a car, along with seven out of eight work trips made by workers in Gaithersburg. The majority of Metro users who reside in this area use automobiles for access to transit, although feeder buses account for a moderate share of access as well. Pedestrian and bicycle access to the Metro and MARC are rather poor.

Potential for Change in Group Status: The City of Gaithersburg could become a Group IV Area with the extension of a transitway beyond Shady Grove, significant improvements in accessibility to transit, provision of more frequent transit services, and traffic demand management measures to boost use of modes other than the automobile. The area is currently at its average LOS standard, so these measures could provide substantial additional staging ceiling capacity while boosting the non-auto driver mode share.

Three highway projects that would address the congestion problem are: reprogramming MD 28 in the City, Watkins Mill Road Extended, and widening Great Seneca Highway.

GERMANTOWN EAST

Transit Level of Service: *Group II*

Moratorium for: *Jobs*

Moratorium due to: *Pipeline and Existing Base of Development*

Germantown East is in moratorium for jobs because approved development, when added to the existing base, causes the area's level of service to be more congested than its Group II LOS standard.

Background: Less than six out of ten area households are within walking distance of transit. No rail service is located in this area, although limited frequency MARC service is available in nearby Germantown West and moderately frequent Metro service is available in the more distant Shady Grove area. Bus service frequency is good, but overall transit access is limited or marginal because subdivision sidewalks are not well-connected to activity centers and there are no bikeways or secure bicycle parking spaces at the MARC station nearby.

Auto/Transit Usage: Almost seven out of eight work trips to and from Germantown are made by driving a car. The vast majority of Metro users who reside in Germantown use automobiles for access to transit, although feeder buses account for a small share of access as well.

Potential for Change in Group Status: This area could become a Group III area with major improvements in accessibility (such as sidewalks and bicycle access to transit, shopping, and employment centers), provision of better transit services, and application of traffic demand management measures that increase non-automobile driver mode shares.

Among the Planning Department's high priority recommendations for County CIP highway projects are several that would address the subdivision moratorium in the area. They include the Germantown/Montgomery Village Connector (M-83), and Frederick Avenue (MD 355) between MD 124 and MD 118.

With current fiscal constraints, it is unlikely that the M-83 project will receive the go-ahead in the near future. Similarly long-term, the Corridor Cities transitway project would provide substantial additional jobs and housing capacity for Germantown East.

GERMANTOWN WEST

Transit Level of Service: *Group II*

Moratorium for: *Jobs and Housing*

Moratorium due to: *Pipeline and Existing Base of Development*

Germantown West is in moratorium for jobs and housing because approved development, when added to the existing base, causes the area's level of service to exceed its Group II LOS standard.

Background: Almost three-fourths of Germantown West's households are within walking distance of transit, bus service frequency is good, and rail service (MARC) frequency is limited. Accessibility to transit is hampered because sidewalks and bikeways are fragmented and the MARC station park-and-ride lot has a limited number of spaces and no secure bicycle parking.

Auto/Transit Usage: Almost seven out of eight work trips to and from Germantown are made by driving a car. The majority of Metro users who reside in Germantown use automobiles for access to transit, although feeder buses account for a moderate share of access as well.

Potential for Change in Group Status: To become a Group III area, Germantown West needs increased coverage and frequency of bus service and increased frequency of MARC service. Now that increased frequency of MARC is programmed, transit accessibility needs to be improved, including more sidewalks and bicycle paths or lanes leading to the town center, the MARC station, and to shopping and employment areas. Park-and-ride spaces and greater use of transportation demand management would help to change the non-automobile driver mode share, as would enhanced coordination of bus and rail services.

Among the Planning Department's high priority highway projects are two that would address the subdivision moratorium in the area. They include Father Hurley Boulevard/Ridge Road Extended and Middlebrook Road. Other projects that would help raise the ceiling are the widening of Clopper Road (MD 117), improvements to Germantown Road Relocated (MD 118), and the widening of Great Seneca Highway.

The Germantown Town Center Staging Analysis, now underway, will provide additional solutions for increasing the staging ceiling capacity in the Town Center and will also have a positive effect on Germantown West. A package of proposed solutions will be reviewed by the Planning Board in October 1992 and presented to the County Council in November 1992.

In the long-term, the Corridor Cities transitway project is anticipated to provide substantial additional jobs and housing capacity for Germantown West.

GERMANTOWN TOWN CENTER

Transit Level of Service: *Group II*

Moratorium for: *Jobs and Housing*

Moratorium due to: *Pipeline and Existing Base of Development*

Background: The Germantown Town Center was created in the FY92 AGP by the Council and its net remaining capacity for both jobs and housing was set at zero. Average traffic and transit levels of service are not measured for compact town center and metro station policy areas, but are evaluated for the larger policy areas of which they are a part. Thus, measures that would increase the transit level of service (LOS) and highway LOS standard for the Germantown West Policy Area would benefit the Germantown Town Center area.

By creating the Town Center policy area as a separate unit, the Council provided a mechanism for preferentially allocating future development capacity in the Germantown West area to the Town Center. Planning Board staff and Executive staff are currently working together to identify specific improvements and financing mechanisms that can enable the creation of positive net remaining capacity for the Germantown Town Center. A package of proposed solutions will be reviewed by the Planning Board in October 1992 and presented to the County Council in November 1992 (see Section III: FY94 Annual Growth Policy Issues, Issue Number 3).

In anticipation of the results of this effort, the Planning Department included as one of its highest priority transportation recommendations to MCDOT a new project, *Germantown Town Center Improvements*, for inclusion in the Capital Improvements Program. This proposed project includes transportation and non-transportation elements designed to encourage and enhance the buildout of the Town Center.

KENSINGTON/WHEATON (including WHEATON CBD)

Transit Level of Service: *Group IV*

Not in Moratorium

Background: Kensington/Wheaton's transit service coverage is good with about five of six households within walking distance of transit. Bus frequency is very good. This area is served by two Metrorail stations and a MARC station. Transit accessibility is enhanced by a good supply of sidewalks, although many are narrow along major roads. Bike paths and lanes are limited. Street crossing conditions are often poor at major intersections. There are many park-and-ride options.

Auto/Transit Usage: About four out of five work trips both to and from the area are made by car. There is extensive use of feeder buses and automobiles to access transit, although exact figures are not yet available.

Potential for Change in Group Status: With increased frequency on the Metrorail line, modest improvements in accessibility (especially bicycle paths accessing activity centers), and traffic demand management measures to boost use of modes other than the automobile, Kensington/Wheaton could become a Group V Area. Because the area currently meets its average LOS standard, these measures would provide additional staging ceiling capacity. As part of the Eastern Montgomery County Master Plan revision, the Four Corners and Vicinity Plan is being studied.

MONTGOMERY VILLAGE/AIRPARK

Transit Level of Service: *Group II*

Moratorium for: *Jobs and Housing*

Moratorium due to: *Existing Base of Development*

Montgomery Village/Airpark is in moratorium for both jobs and housing because its existing base of development causes the level of congestion to exceed its Group II LOS standard.

Background: The Montgomery Village area has a very good level of transit service coverage, but access is limited by the absence of sidewalks connecting to activity centers and cul-de-sac street areas. Bus frequency is moderate. There is no direct rail service, although Metrorail and MARC are reachable by car. Bikeways are fragmented and transit stations lack secure bicycle parking places.

Auto/Transit Usage: About seven out of eight work trips to and from the area are made by driving a car. Most of the area's Metro users drive to transit.

Potential for Change in Group Status: Montgomery Village/Airpark could become a Group III Area with significant improvements in accessibility (especially sidewalks and bicycle access to transit), provision of better transit services, frequency, and coverage, and traffic demand management measures to boost use of modes other than the automobile. These measures are needed for traffic congestion reduction as well as for additional staging ceiling capacity.

The Germantown/Montgomery Village Connector would raise the staging ceiling and is a Planning Department high priority project. Two other projects that could address the moratorium are Goshen Road Phase II and Laytonsville Road (MD 124).

NORTH BETHESDA

Transit Level of Service: *Group IV*

Moratorium for: *Jobs*

Moratorium due to: *Pipeline and Existing Base of Development*

North Bethesda is in moratorium for jobs because approved development, when added to the existing base, causes the area's level of service to be more congested than its Group IV standard.

Background: North Bethesda's location at the junction of I-270 and the Capital Beltway puts it at the crossroads of the County's vehicular traffic. Its good level of transit service qualifies it as a Group IV Area. It has three Metrorail stations and three MARC commuter trains during the morning peak hour. Most of the roads in the area have sidewalks but many of those along the most heavily-travelled roads are narrow. There are a few bicycle paths or lanes providing access to transit, shopping, and employment centers, but the number of secure bicycle parking spaces at the stations is limited.

Auto/Transit Usage: More than four out five work trips to and from North Bethesda are made by car. Just under half of the trips to and from Metro stations are by car as well, and only 5 to ten percent are by feeder bus.

Potential for Change in Group Status: One of the actions that would most help North Bethesda become a Group V Area is an improvement in Metrorail frequency at White Flint and Twinbrook. This would have to be coupled with the provision of a very good level of feeder bus service, because little capacity remains at the station parking lots. If this does not occur, other significant transit, pedestrian, and bicycle improvements would have to be coupled with stronger transportation demand management measures to increase the non-automobile driver mode share.

One of the Planning Department's highest priority new projects recommended to MCDOT for inclusion in the CIP would identify and effect improvements to facilitate access to transit stations in North Bethesda and elsewhere.

The Planning Department's recommendations for highest priority existing transportation projects include one which serves North Bethesda: the I-270 Overpass/Westlake-Fernwood Road. The Department also gave high priority to this project in the FY93-98 Staff Draft AGP. The programmed improvements to the east spur of I-270 has raised the ceiling; the widening of the west spur of I-270 will do so as well.

An ammendment to the North Bethesda Master Plan for staging will be coming to the Planning Board in early 1994. This will include the allocation of additional capacity from the I-270 East and West spur widening.

NORTH POTOMAC

Transit Level of Service: *Group II*

Moratorium for: *Jobs and Housing*

Moratorium due to: *Existing Base of Development*

North Potomac is in moratorium for jobs and housing because its existing base of development causes this area to exceed its current Group II LOS standard.

Background: North Potomac has a marginal level of transit service coverage and frequency. Less than two out of ten households are within walking distance of transit and there are less than two buses on average per AM peak hour on the area's routes. There are no rail stations in the area, but limited MARC service

is available in nearby Gaithersburg and moderate Metro service is available at the more distant Shady Grove station.

Accessibility to transit in the area is marginal to limited. Many subdivision streets and most major roads in the area lack sidewalks. There are no bikeways or secure bicycle parking spaces serving transit. Area residents can use the park-and-ride spaces at the Shady Grove Metro station, but space is limited as users from other areas share this lot.

Auto/Transit Usage: Almost nine out of ten work trips to and from North Potomac are made by driving a car. Most Metro users who reside in North Potomac access transit by automobile.

Potential for Change in Group Status: Quite substantial improvements in accessibility (especially sidewalks and bicycle access to transit, shopping, and employment), provision of more frequent and far more extensive transit services, and traffic demand management measures would be needed to make North Potomac a Group III area.

Highway projects that could address the subdivision moratorium include the reprogramming of the MD 28 project, Longdraft Road Phase III, and the widening of Quince Orchard Road (MD 124).

OLNEY

Transit Level of Service: *Group II*

Moratorium for: *Jobs and Housing*

Moratorium due to: *Pipeline and Existing Base of Development*

Olney is in moratorium for jobs and housing because approved development, when added to the existing base, causes the area's level of service to be more congested than its current Group II LOS standard.

Background: Olney's transit service coverage is moderate (three-fourths of households are within walking distance of transit). While there are no rail stations, Olney's bus service frequency is good. One of the major bus routes operates as an express from south of Aspen Hill to the Silver Spring and Wheaton Metro stations. Accessibility to transit is marginal because most major roads do not have sidewalks, there are few bikeways, and there are no secure bicycle parking spaces serving transit. Park-and-ride facilities are available at the Wheaton Metro station and at the Norbeck Road lot.

Auto/Transit Usage: About six out of seven work trips to and from Olney are made by driving a car. The vast majority of the Metro users who reside in Olney use automobiles to access transit; the others walk to feeder buses.

Potential for Change in Group Status: Olney might be able to become a Group III area with a significant upgrade of feeder bus service to the Wheaton-Glenmont Metro stations, in conjunction with a system of park-and-ride lots, sidewalk and bicycle facility improvements.

The reprogramming of improvements to Laytonsville-Sandy Spring Road (MD 108--Olney Mill Road to Dr Bird Road) could also add development capacity in this area. The acquisition of the right-of-way for this improvement, one of the Planning Department's priority CIP projects, is to be complete in FY93.

POTOMAC

Transit Level of Service: *Group II*
Not in Moratorium

Potomac is not in moratorium because the staging ceiling is set at the zoning ceiling based on the policy in the Potomac Master Plan.

Background: Transit service coverage in Potomac is limited -- just half of the households are within walking distance of bus service, which is of limited frequency. There are no rail stations in the area.

Accessibility to transit ranges from limited to good because a low proportion of subdivision streets and few major roads have sidewalks. While the Tuckerman Lane bikeway facilitates access to the Grosvenor Metro, the station has a marginal amount of secure bicycle parking. Policy area residents have moderate access to park-and-ride spaces at the Metro stations in North Bethesda and at Montgomery Mall.

Auto/Transit Usage: About seven out of eight work trips from this area are made by driving a car while about five of six work trips to the area are by car. The majority of Potomac's Metro users drive to the station.

Potential for Change in Group Status: Potomac could become a Group III Area only with major improvements in transit coverage, frequency, and accessibility. A transitway to serve the Montgomery Mall area is under consideration in the updating of the North Bethesda Master Plan. Traffic demand management programs would also help reduce traffic congestion.

RESEARCH AND DEVELOPMENT (R&D) VILLAGE

Transit Level of Service: *Group II*
Moratorium for: *Jobs*
Moratorium due to: *Pipeline and Existing Base of Development*

The R&D Village is in moratorium for jobs because approved development, when added to the existing base, causes the area to exceed its Group II LOS standard.

Background: The R&D Village has a low level of bus service frequency and is not served by rail, although rail service is available at nearby Metropolitan Grove and Shady Grove. Accessibility to transit in this policy area ranges from marginal to very good. Sidewalks are available on a number of major roads in this area although they do not form a connected network providing good access to employment areas or the MARC stations. Bikeway facilities are good in this area,

which were implemented in conjunction with various roadway projects. However, these do not connect to transit stations or secure bicycle parking at transit. Policy area residents have moderate access to park-and-ride spaces at the Shady Grove Metro station.

Auto/Transit Usage: About seven out of eight work trips to and from this area are made by driving a car. The majority of Metro users who reside in R&D Village access transit by automobile, although feeder buses account for some access as well.

Potential for Change in Group Status: The R&D Village could become a Group III area with provision of better transit services; improvements in pedestrian, bicycle, and park-and-ride accessibility; and traffic demand management measures. Improvements to Life Sciences Center Roadway would provide additional transportation capacity. This existing CIP project is a high priority of the Planning Department.

The reprogramming of the MD 28 would also add capacity. In the long run, the Corridor Cities Transit project would provide substantial additional development capacity for this area, possibly raising it to a Group IV area.

ROCKVILLE CITY

Transit Level of Service: *Group IV*

Level of Service Exceeded, But is Not Subject to County Review

The base plus pipeline of approved development in Rockville city causes this area to exceed its current Group IV LOS standard. However, the City of Rockville does not administer the AGP or the APFO in its review of proposed development. Instead, it applies what is termed the *Standard Review Methodology* to selected development cases.

Background: Rockville has a very good level of bus frequency and is served by both Metrorail and MARC. The supply of sidewalks and bicycle paths is also good. However, conditions for crossing major roads are often poor for both pedestrians and cyclists. Secure bicycle parking is limited at the Rockville Metro station.

Potential for Change in Group Status: With provision of more frequent transit services, improvements in accessibility, and application of traffic demand management measures, Rockville could become a Group V area and additional staging ceiling capacity made available. Several highway projects that could also add some development capacity to the City of Rockville are: reprogramming of the MD 28 project, West Ritchie Parkway, and Chapman Avenue.

SILVER SPRING/TAKOMA PARK (including SILVER SPRING CBD)

Transit Level of Service: *Group V*

Not in Moratorium

Background: With two Metro stations, a MARC station, and extensive feeder bus service, this policy area is one of the County's major transit centers, with both

high transit coverage and frequency. Accessibility is enhanced by a good supply of sidewalks, but many of them are very narrow along major roads outside of the CBDs. Bicycle paths and lanes are limited and conditions for crossing major roads are often poor for both pedestrians and cyclists. There is a moderate amount of secure bicycle parking spaces at the two rail stations, but a substantial amount. Policy area residents have access to a substantial supply of park-and-ride spaces at the three stations.

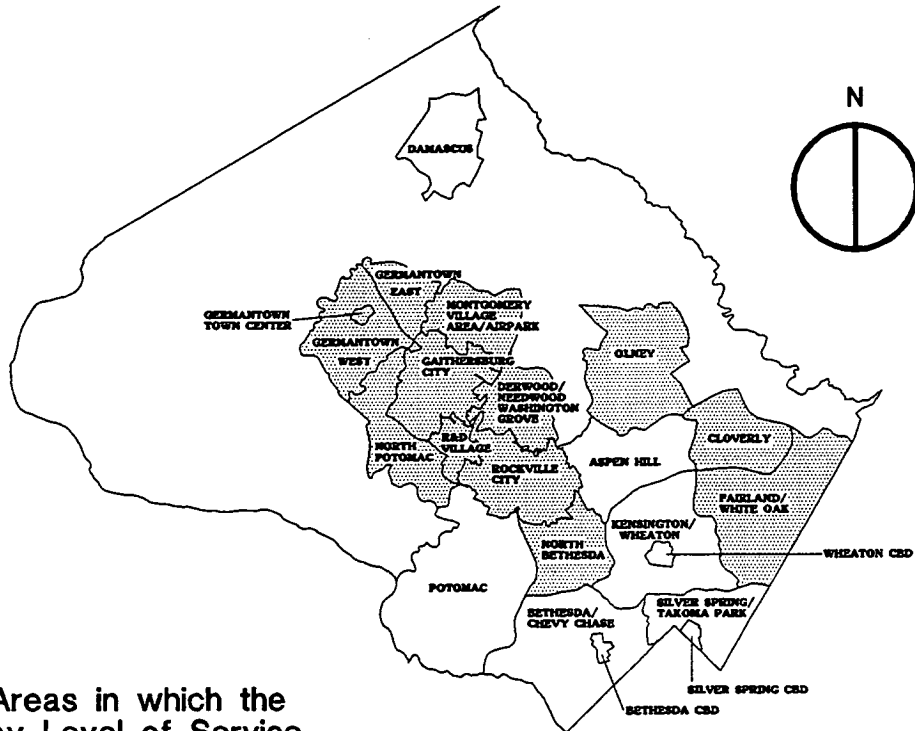
Auto/Transit Usage: Roughly five out of eight work trips by Silver Spring/Takoma Park residents are made by car, while five out of seven work trips by Silver Spring/Takoma Park workers are made by car. Metro station access in Silver Spring is mainly by feeder bus; pedestrian access accounts for most of the remaining trips.

Potential for Improvement: Modest improvements in accessibility (especially bicycle paths to improve access to activity centers and improvements in the pedestrian friendliness of street crossings) and traffic demand management measures to boost use of modes other than the automobile, could help reduce traffic congestion in Silver Spring/Takoma Park. In this policy area, the housing staging ceiling is set approximately equal to the zoning holding capacity.

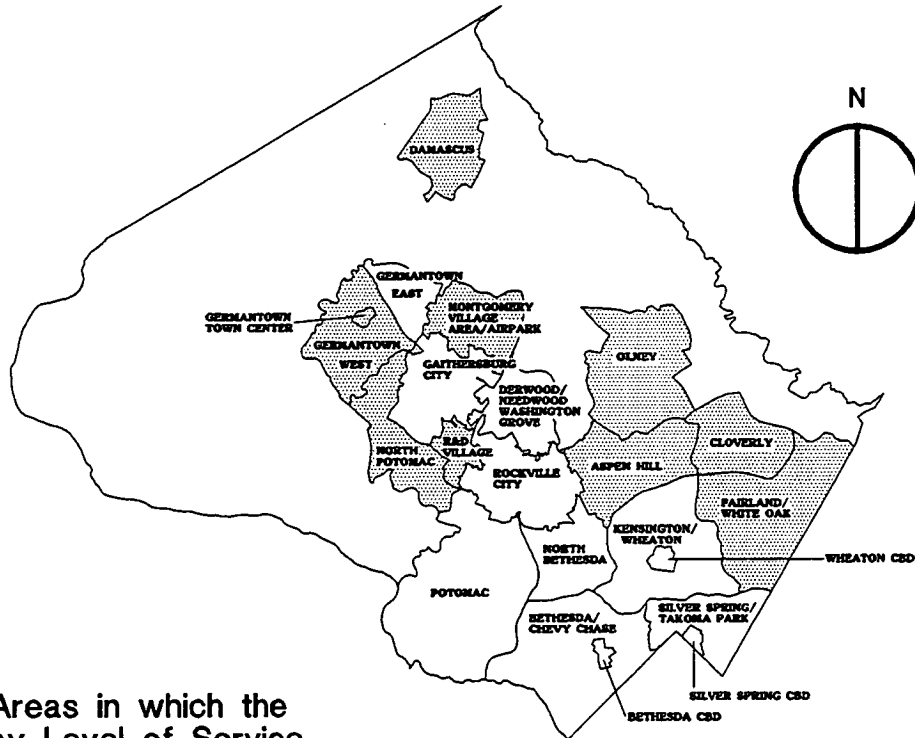
2. PUBLIC SCHOOL CAPACITIES

Because MCPS has not yet released their 1992 enrollment forecast for 1997 and the requested FY94-99 CIP, the school capacity analysis is not available for the staff draft FY94 AGP. This information should be available for the Planning Board's work sessions on the FY94 AGP.

FY93 AGP ADOPTED (AS OF 10/5/92)

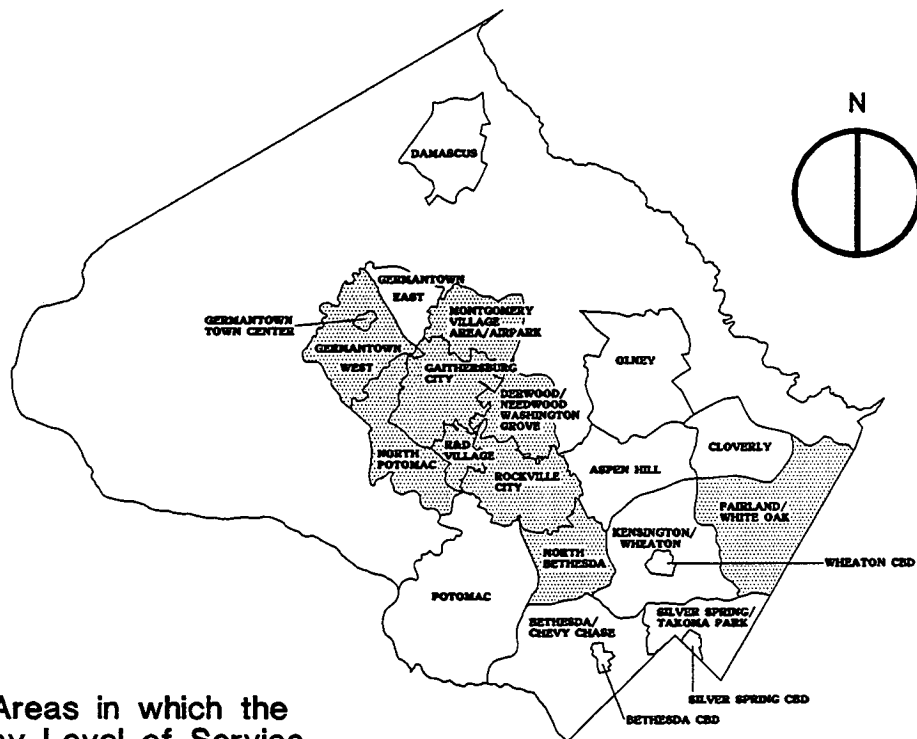


Policy Areas in which the
Roadway Level of Service
is Inadequate for Jobs-
No New Approvals

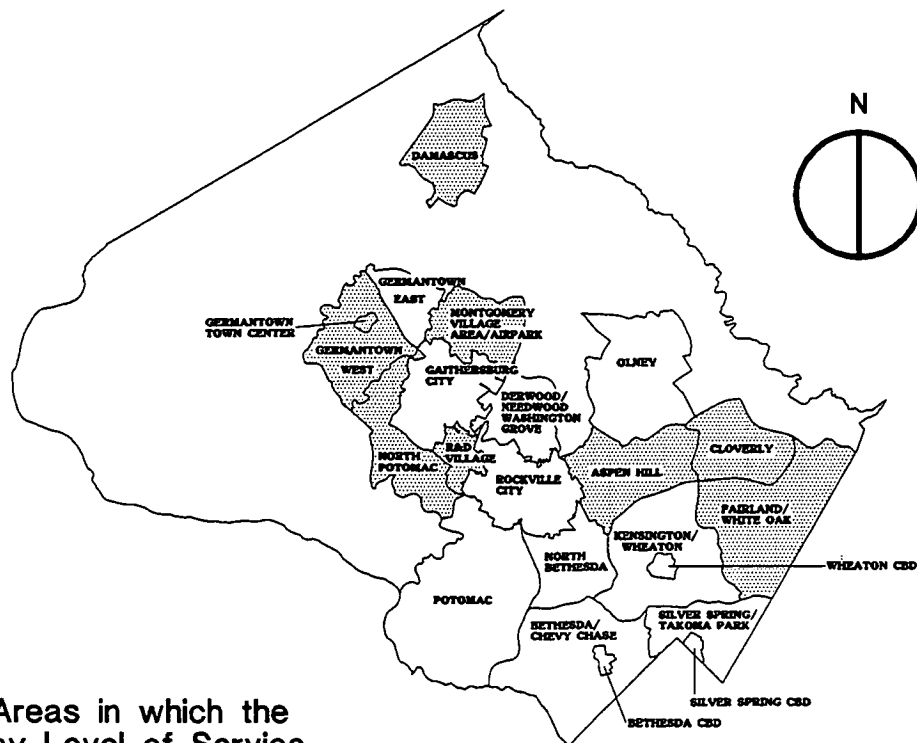


Policy Areas in which the
Roadway Level of Service
is Inadequate for Housing-
No New Approvals

FY94 AGP STAFF DRAFT (AS OF 10/5/92)



Policy Areas in which the
Roadway Level of Service
is Inadequate for Jobs-
No New Approvals



Policy Areas in which the
Roadway Level of Service
is Inadequate for Housing-
No New Approvals

CHART 1A: QUANTIFICATION OF THE CORRESPONDENCE BETWEEN TRANSIT AVAILABILITY AND AVERAGE LEVEL OF SERVICE STANDARDS

Average Roadway Level of Service Standards	Group Classifi- cations	Public Transport Alternatives to Automobile Travel	Transit Services Available or Programmed				
			Auto Dependent System	and/or	Bus Based Systems	and/or	Fixed Guideway Systems
			Park/Ride Access	Community and Local Bus Service	Regional Park/Ride Express Bus and High Occupancy Vehicle Priority Systems	Commuter Rail or Light Rail	Metrorail
			Representative Quantification Measures ^{**}				
			1. Number of Park/Ride Spaces Allocated	2. Average Bus Frequencies in AM Peak Hour on Combined Routes (Buses per hour)	3. Number of Parking Spaces in Fringe Parking Lots	4. Average Frequency of Commuter Rail in AM Peak Hour (Trains per hour)	5. Average Frequency of Metrorail in AM Peak Hour (Trains per hour)
*	I	Marginal	Marginal access to stations or bus routes outside of the area	Not available	Not available	Marginal amount of the area is within walk access	Not Available
C	II	Limited	Limited number of park/ride spaces	Limited coverage and frequency	Limited park/ride spaces or lots with local bus service	Limited park/ride access and walk access	Park/ride and kiss/ ride access limited to nearby stations outside the area
			100 to 500	2 to 3.5	100 to 500	3 to 6	0
C/D	III	Moderate	Moderate number of park/ride spaces, limited kiss/ride service	Moderate coverage, service limited to policy frequencies	Moderate express bus service in conjunction with a system of park/ride lots	Moderate parking or walk access with system transfers	Moderate station coverage in the area with associated feeder access
			500 to 1000	3.5 to 5	500 to 2250	6 or more	0 to 15

D	IV	Frequent	Very good number of park/ride spaces and moderate kiss/ride service	Moderate coverage, combined policy and frequent demand-based service	Priority treatment for frequent express buses, local circulation feeder services in conjunction with a system of park/ride lots	Same as Group III above	More dense spacing of stations and bus routes
			1000 to 1500	5 to 8	More than 2250		15 to 35
D/E	V	Full	Substantial park/ride with full reliance on kiss/ride access	Full area coverage and a large number of routes with frequencies based on demand	Same as Group IV above	Same as Group III above	Full frequency and full reliance on kiss/ride, easier walk and bicycle access
			1500 to 2250	8 to 10			More than 35
*	VI	Expanded	Expanded park/ride with reliance on kiss/ride access	Expanded bus frequencies;	Same as Group IV above	Same as Group III above	Designated CBD; controlled parking; Transportation Management District

- * See Text of the Adopted FY91 AGP for Methods and Standard of Measuring Traffic
 ** Other measures are also used in the quantification; see supporting documentation

Source: Montgomery County Planning Department
 October, 1990

CHART 1B: QUANTIFICATION OF THE CORRESPONDENCE BETWEEN TRANSIT AVAILABILITY AND AVERAGE LEVEL OF SERVICE STANDARDS FOR NINE GROUPS

Average Roadway Level of Service Standards	Group Classifi- cations	Public Transport Alternatives to Automobile Travel	Transit Services Available or Programmed						
			Auto Dependent System	and/or	Bus Based Systems		and/or	Fixed Guideway Systems	
					Community and Local Bus Service	Regional Park/Ride Express Bus and High Occupancy Vehicle Priority Systems		Commuter Rail or Light Rail	Metrorail
								Park/Ride Access	
Representative Quantification Measures**									
			1. Number of Park/Ride Spaces Allocated	2. Average Bus Frequencies in AM Peak Hour on Combined Routes (Buses per hour)	3. Number of Parking Spaces in Fringe Parking Lots	4. Average Frequency of Commuter Rail in AM Peak Hour (Trains per hour)	5. Average Frequency of Metrorail in AM Peak Hour (Trains per hour)		
*	I	Marginal	Marginal access to stations or bus routes outside of the area	Not available	Not available	Marginal amount of the area is within walk access	Not Available		
C	IIa	Very limited	Very limited number of park/ride spaces 100 to 250	Very limited coverage and frequency 1 to 3	Very limited park/ride spaces or lots with local bus service 100 to 250	Very limited park/ ride access and walk access 1 to 3	Very limited park/ride and kiss/ride access to stations outside the area 0		
C-	IIb	Limited	Limited number of park/ride spaces 250 to 500	Limited coverage and service limited to policy frequency 3 to 4	Limited park/ride spaces with local bus service 250 to 500	Limited park/ride access and walk access 3 to 4	Park/ride and kiss/ride access limited to nearby stations out of the area 0		
C/D	IIIa	Moderate	Moderate number of park/ride spaces, limited kiss/ride service 500 to 750	Moderate coverage, some demand-based frequency 4 to 5	Moderate express bus service in conjunction with a good system of park/ride lots 500 to 1000	Moderate park/ride or walk access 5 to 6	Station coverage in adjacent areas with associated bus feeder access 0		

D+	IIIb	Good	Good number of park/ride spaces, moderate kiss/ride	Moderate coverage and service frequencies	Good express bus service in conjunction with a very good system of park/ride lots	Good park/ride or walk access with system transfers	Station in area with good park/ride access
			750 to 1000	5 to 6	1000 to 1500	6 or more	0 to 10
D	IVa	Frequent	Very good number of park/ride spaces and moderate kiss/ride service	Very good coverage, combined policy and frequent demand-based service	Priority treatment for frequent express buses, local circulation feeder services in conjunction with a substantial system of park/ride lots	Same as Group IIIb above	More than one station and with frequent bus feeder routes
			1000 to 1500	6 to 8	1500 to 2250		10 to 12
D-	IVb	Very Frequent	Substantial number of park/ride spaces and kiss/ride service	Very good coverage and very frequent service	Priority treatment for very frequent express bus in conjunction with a very substantial system of park/ride lots	Same as Group IIIb above	Several stations with very frequent trains and feeder buses
			1500 to 2250	8 to 10	More than 2250		12 to 15
D/E	V	Full	Very substantial park/ride with full reliance on kiss/ride access	Full area coverage and a large number of routes with frequencies based on demand	Same as Group IVb above	Same as Group IIIb above	Full frequency and full reliance on kiss/ride, easier walk and bicycle access
			2250 to 3000	More than 10			15 to 20
*	VI	Expanded	Expanded park/ride with reliance on kiss/ride access	Expanded bus frequencies;	Same as Group IVb above	Same as Group IIIb above	Designated CBD; controlled parking; Transportation Management District

* See Text of the Adopted FY93 AGP for Methods and Standard of Measuring Traffic
 ** Other measures are also used in the quantification; see supporting documentation

CHANGE IN THE JOB PIPELINE FROM 6/27/91 to 6/30/92

	A	B	C	D	E	F	G	H	I
		Changes Due to New Approvals			Building Permit		B+C+D+E	A+G	Errors
Policy Area	Pipeline 6/27/91 (1990 Base)	Plans Approved by M-NCPPC	Plans Approved by Cities	Public Buildings	Approvals on "Loophole" Properties	Technical Changes	Total Changes in Pipeline	Pipeline 6/30/92 1990 Base	Reported Since 6/27/91
Aspen Hill	14	0	0	0	0	0	0	14	0
Bethesda CBD	3,775	13	0	0	0	0	13	3,788	0
Bethesda/Chevy Chase	3,014	0	0	0	40	0	40	3,054	0
Cloverly	100	0	0	0	0	0	0	100	0
Damascus	608	55	0	0	0	0	55	663	0
Derwood/Needwood	3,065	0	0	0	30	0	30	3,095	0
Wash. Grove/Shady Grove									
Fairland/White Oak	7,255	0	0	0	0	(208)	(208)	7,047	0
Gaithersburg City	14,502	0	281	0	0	6,171	6,452	20,954	0
Germantown East	15,077	51	0	0	0	0	51	15,128	0
Germantown West	5,627	4,758	0	0	0	0	4,758	10,385	0
Germantown Town Center	3,212	0	0	0	0	0	0	3,212	0
Kensington/ Wheaton	287	0	0	0	0	0	0	287	0
Montgomery Village/Airpark	3,575	2,906	0	0	0	(487)	2,419	5,994	0
North Bethesda	13,316	0	0	0	0	0	0	13,316	0
North Potomac	254	0	0	0	0	0	0	254	0
Olney	947	10	0	0	0	0	7	957	0
Potomac	625	0	0	0	15	0	15	640	0
R & D Village	14,707	0	0	0	0	(7,451)	(7,451)	7,256	397
Rockville City	17,631	0	1,789	0	0	0	61	19,420	(310)
Silver Spring CBD	9,859	699	0	0	0	0	0	10,558	0
Silver Spring/Takoma Park	1,044	5	0	0	0	0	0	149	0
Wheaton CBD	102	0	0	0	0	0	0	102	0
TOTAL (units)	103,171	8,497	2,070	0	85	(1,975)	6,242	127,273	87

TABLE 9

Source: Montgomery County Planning Department, Research Division, September 1992

CHANGE IN THE JOB PIPELINE FROM 6/30/92 to 9/24/92

	A	B	C	D	E	F	G	H	I
		Changes Due to New Approvals			Building Permit		B+C+D+E	A+G	Errors
Policy Area	Pipeline 6/30/92 (1991 Base)	Plans Approved by M-NCPPC	Plans Approved by Cities	Public Buildings	Approvals on "Loophole" Properties	Technical Changes	Total Changes in Pipeline	Pipeline 9/24/92 1991 Base	Reported Since 6/30/92
Aspen Hill	14	0	0	0	0	0	0	14	0
Bethesda CBD	3,152	0	0	0	0	0	0	3,152	0
Bethesda/Chevy Chase	2,954	1,065	0	0	0	(301)	764	3,718	0
Cloverly	100	0	0	0	0	0	0	100	0
Damascus	623	0	0	0	0	0	0	623	0
Derwood/Needwood	2,614	0	0	0	0	0	0	2,614	0
Wash. Grove/Shady Grove									
Fairland/White Oak	6,918	0	0	0	0	0	0	6,918	0
Gaithersburg City	19,595	0	0	0	0	0	0	19,595	0
Germantown East	15,012	0	0	0	0	0	0	15,012	0
Germantown West	9,908	0	0	0	0	0	0	9,908	0
Germantown Town Center	3,164	0	0	0	0	0	0	3,164	0
Kensington/ Wheaton	287	0	0	0	0	0	0	287	0
Montgomery Village/Airpark	5,848	0	0	0	0	0	0	5,848	0
North Bethesda	11,586	0	0	0	0	0	0	11,586	0
North Potomac	254	0	0	0	0	0	0	254	0
Olney	943	0	0	0	0	0	0	943	0
Potomac	655	0	0	0	0	0	0	655	0
R & D Village	6,604	0	0	0	0	0	0	6,604	0
Rockville City	19,180	0	0	0	0	0	0	19,180	0
Silver Spring CBD	10,584	0	0	0	0	0	0	10,584	0
Silver Spring/Takoma Park	908	0	0	0	0	0	0	908	0
Wheaton CBD	87	0	0	0	0	0	0	87	0
TOTAL (units)	120,990	1,065	0	0	0	(301)	764	121,754	0

Source: Montgomery County Planning Department, Research Division, September 1992

Housing Approvals in Moratorium Areas

Number of Units

6/27/91 – 6/30/92

Policy Areas	De minimis	Trip Mitigation	Developer Participation	Affordable Housing Ceiling Allocation	Queue Management	Sewer Approvals	Cities	Total
Aspen Hill	0	0	0	0	0	0	0	0
Cloverly	9	0	0	29	0	0	0	38
Damascus	0	0	0	35	0	0	0	35
Fairland/White Oak	9	0	0	196	0	0	0	205
Germantown West	3	0	881	252	0	0	0	1136
Montgomery Village/Airpark	0	0	0	0	223	0	0	223
North Potomac	0	0	0	0	7	0	0	7
Olney	11	0	0	0	0	0	0	11
R & D Village	0	0	0	0	0	0	0	0
Totals	32	0	881	512	230	0	0	1655

Non-Residential Approvals in Moratorium Areas

Number of Jobs

6/27/91 – 6/30/92

Policy Areas	De minimis	Trip Mitigation	Developer Participation	Health Care Facility	Queue Management	"Loophole"	Cities	Public Building	Total
Cloverly	0	0	0	0	0	0	0	0	0
Derwood/Needwood/W.G./S.G.	0	0	0	0	0	30	0	0	30
Fairland/White Oak	0	0	0	0	0	0	0	0	0
Gaithersburg City	0	0	0	0	0	0	281	0	281
Germantown East	0	0	0	50	0	0	0	0	50
Germantown West	0	0	4,758	0	0	0	0	0	4,758
Germantown Town Center	0	0	0	0	0	0	0	0	0
Montgomery Village/Airpark	0	78	2,828	0	0	0	0	0	2,906
North Bethesda	0	0	0	0	0	0	0	0	0
North Potomac	0	0	0	0	0	0	0	0	0
Olney	7	0	0	3	0	0	0	0	10
R & D Village	0	0	0	0	0	0	0	0	0
Rockville City	0	0	0	0	0	0	1,789	0	1,789
Totals	7	78	7,586	53	0	30	2,070	0	9,824

TABLE 11

Source: Montgomery County Planning Department, Research Division, September 1992.

Housing Approvals in Moratorium Areas
Number of Units
6/30/92 - 9/24/92

Policy Areas	De minimis	Trip Mitigation	Developer Participation	Affordable Housing Ceiling Allocation	Queue Management	Sewer Approvals	Cities	Total
Aspen Hill	0	0	0	0	0	0	0	0
Cloverly	0	0	0	0	0	0	0	0
Damascus	0	0	0	0	0	0	0	0
Fairland/White Oak	0	0	0	0	0	0	0	0
Germantown West	0	49	0	100	0	0	0	149
Montgomery Village/Airpark	0	0	0	0	0	0	0	0
North Potomac	0	0	0	0	0	0	0	0
Olney	0	0	0	0	0	0	0	0
R & D Village	0	0	0	0	0	0	0	0
Totals	0	49	0	100	0	0	0	149

Non-Residential Approvals in Moratorium Areas
Number of Jobs
6/30/92 - 9/24/92

Policy Areas	De minimis	Trip Mitigation	Developer Participation	Health Care Facility	Queue Management	"Loophole"	Cities	Public Building	Total
Cloverly	0	0	0	0	0	0	0	0	0
Derwood/Needwood/W.G./S.G.	0	0	0	0	0	0	0	0	0
Fairland/White Oak	0	0	0	0	0	0	0	0	0
Gaithersburg City	0	0	0	0	0	0	0	0	0
Germantown East	0	0	0	0	0	0	0	0	0
Germantown West	0	0	0	0	0	0	0	0	0
Germantown Town Center	0	0	0	0	0	0	0	0	0
Montgomery Village/Airpark	0	0	0	0	0	0	0	0	0
North Bethesda	0	0	0	0	0	0	0	0	0
North Potomac	0	0	0	0	0	0	0	0	0
Olney	0	0	0	0	0	0	0	0	0
R & D Village	0	0	0	0	0	0	0	0	0
Rockville City	0	0	0	0	0	0	0	0	0
Totals	0	0	0	0	0	0	0	0	0

TABLE 12

NET REMAINING CAPACITY UNDER TRANSPORTATION STAGINGS, 1982 - 1994 HOUSING

TABLE 13

	Comprehensive Planning Policies						Annual Growth Policy						
	Count 50%			Count 80%	Count 100%	Count 100%	Count 100%						
	First			First	First	First	First						
	6 Years			6 Years	6 Years	4 Years	4 Years						
	(1)			(2)	(3)	(4)	(5)						
	1982	1983	1984	1985	1986	1986a	FY 88	FY 89	FY 90	FY 91	FY 92	FY 93	FY 94
Bethesda/Chevy Chase	2,072	2,313	3,249	3,112	3,354	3,198	2,784	3,497	2,185	2,109	2,339	2,438	2419
Bethesda CBD	NA	NA	NA	NA	NA	NA	NA	1,013	798	798	500	500	500
Cloverly	(1,157)	(1,860)	(1,928)	(1,992)	(1,794)	(1,804)	(1,480)	(1,188)	(2,048)	(2,057)	(2,105)	(2,135)	(637)
Damascus	NA	NA	NA	NA	(2,120)	(1,620)	(1,274)	(684)	(666)	(821)	(804)	(968)	(968)
Fairland/White Oak	1,351	(992)	(295)	(2,133)	(1,571)	(2,573)	(1,508)	(3,668)	(3,113)	(2,418)	(2,826)	2,217	(2,205)
Gaithersburg Area	2,784	74	2,811	(1,354)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gaithersburg East	NA	NA	NA	NA	1,455	2,452	3,215	2,013	1,832	1,707	NA	NA	NA
Gaithersburg West	NA	NA	NA	NA	2,174	286	2,846	1,576	(723)	2,621	NA	NA	NA
Derwood/Needwood/Wash. Grove/Shady Gr.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,392	1,379	1,379
Gaithersburg City	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,339	2,219	2,217
Montgomery Village/Airpark	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	(4,220)	(4,222)	(4,222)
North Potomac	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	(4,858)	(4,914)	(4,914)
R&D Village	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	(594)	(248)	(248)
Germantown East	(1,877)	(1,895)	(1,718)	(1,817)	(2,227)	(2,227)	(1,573)	130	1,388	489	53	47	797
Germantown West	(5,947)	(11,031)	(11,851)	(5,580)	(2,736)	(9,736)	(1,860)	543	0	(776)	(775)	(908)	(929)
Germantown Town Center	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0	(36)
Kensington/Wheaton/Aspen Hill	5,174	3,415	3,946	2,015	845	836	721	1,982	NA	NA	NA	NA	NA
Aspen Hill	NA	NA	NA	NA	NA	NA	NA	NA	(4,118)	(5,132)	(5,137)	(5,145)	(5,145)
Kensington/Wheaton	NA	NA	NA	NA	NA	NA	NA	NA	2,382	2,254	1,972	1,858	1,849
Wheaton CBD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,509	1,509	1,509
North Bethesda	2,037	3,235	3,199	3,103	1,003	503	(270)	(173)	(392)	1,372	1,368	2,824	2,824
Olney	2,587	1,970	2,387	1,019	924	724	273	417	322	187	(637)	(713)	296
Potomac	2,621	2,396	2,324	1,931	NA	NA	1,259	2,109	2,060	1,725	1,875	1,844	1,842
Rockville	NA	NA	NA	NA	NA	NA	NA	1,486	1,467	1,941	NA	NA	NA
Rockville City	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	183	183	183
Silver Spring/Takoma Park	7,199	6,985	3,040	2,916	2,848	1,838	617	578	502	470	1,300	2,295	2,294
Silver Spring CBD	NA	NA	NA	NA	NA	NA	3,000	3,348	1,684	1,684	1,372	1,372	1,183

Source: Montgomery County Planning Department, Research Division, October 12, 1992

NET REMAINING CAPACITY UNDER TRANSPORTATION STAGINGS, 1982 - 1994 JOBS

	Comprehensive Planning Policies						Annual Growth Policy						
	Count 50%			Count 80%	Count 100%	Count 100%	Count 100%						
	First			First	First	First	First						
	6 Years			6 Years	6 Years	4 Years	4 Years						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	1982	1983	1984	1985	1986	1986a	FY 88	FY 89	FY 90	FY 91	FY 92	FY 93	FY 94
Bethesda/Chevy Chase	10,006	6,305	7,314	6,383	583	468	1,756	10,312	10,122	10,005	8,955	7,995	7,231
Bethesda CBD	NA	NA	NA	NA	NA	NA	NA	303	175	(29)	318	305	305
Cloverly	489	480	437	218	218	500	307	(93)	(185)	(185)	(185)	(185)	255
Damascus	NA	NA	NA	NA	(1,845)	(1,845)	608	665	352	273	140	85	85
Fairland/White Oak	6,203	2,874	3,161	2,279	(241)	(241)	(4,171)	(9,496)	(9,959)	(11,627)	(11,739)	(9,739)	(9,379)
Galithersburg Area	14,671	13,245	21,133	22,886	NA	NA	NA	NA	NA	NA	NA	NA	NA
Galithersburg East	NA	NA	NA	NA	8,488	6,238	(1,842)	(4,655)	(4,857)	(6,377)	NA	NA	NA
Galithersburg West	NA	NA	NA	NA	12,673	5,193	3,605	4,713	3,312	(1,010)	NA	NA	NA
Derwood/Needwood/Wash. Grove/Shady Gr.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	(2,324)	(2,395)	(2,395)
Galithersburg City	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	(4,802)	(3,890)	(3,890)
Montgomery Village/Airpark	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	(5,536)	(5,266)	(5,266)
North Potomac	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	(104)	(104)	(104)
R&D Village	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	(4,357)	(2,857)	(2,857)
Germantown East	629	608	1,571	1,308	(264)	(247)	(1,221)	2,989	582	2	(62)	(124)	378
Germantown West	4,430	(5,850)	(5,857)	(2,404)	(2,737)	(6,737)	425	2,015	302	(1,227)	(1,296)	(1,740)	(1,490)
Germantown Town Center	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0	0
Kensington/Wheaton/Aspen Hill	4,884	4,771	5,753	5,496	3,554	3,477	8,169	6,214	NA	NA	NA	NA	NA
Aspen Hill	NA	NA	NA	NA	NA	NA	NA	NA	272	334	334	334	334
Kensington/Wheaton	NA	NA	NA	NA	NA	NA	NA	NA	6,210	6,150	3,963	3,963	3,963
Wheaton CBD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,748	2,748	2,748
North Bethesda	6,924	6,483	6,465	296	(2,200)	(2,700)	(1,277)	(431)	(3,435)	(2,835)	(1,847)	(7,625)	(7,645)
Olney	614	501	2,726	2,711	612	607	458	17	163	55	(313)	(320)	677
Potomac	0	0	0	0	NA	NA	2,467	2,768	2,768	2,181	2,181	2,150	2,150
Rockville	NA	NA	NA	NA	NA	NA	NA	1,635	1,507	(3,687)	NA	NA	NA
Rockville City	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	(6,974)	(7,192)	(8,920)
Silver Spring/Takoma Park	15,336	14,365	11,042	10,446	421	2,421	500	358	5	(108)	392	642	637
Silver Spring CBD	NA	NA	NA	NA	NA	NA	3,000	3,348	457	441	941	941	242

TABLE 14

Source: Montgomery County Planning Department, Research Division, October 12, 1992

Notes to Tables 9 - 14

- (1) Transportation improvements had to be at least 50% funded within the next 6 years.
- (2) Transportation improvements had to be at least 80% funded within the next 6 years.
- (3) Transportation improvements had to be 100% funded within 6 years.
- (4) Transportation improvements had to be 100% funded within 4 years.
- (5) Before the FY 89 AGP, the acceptable level of service standard for Fairland/White Oak was established as LOS D. The FY 89 AGP changed this standard to LOS C/D.

Policy Area Definitions

Many changes in policy area boundaries have been made since the first Comprehensive Planning Policies Report in 1982. The following summarizes these changes. This summary does not include minor boundary adjustments, which have affected a number of policy areas. Information on such minor adjustments can be found in the respective Planning Department reports over the 1982-90 period.

Bethesda/Chevy Chase was subdivided into the Bethesda CBD and Bethesda/Chevy Chase policy areas in the FY 89 AGP.

Damascus was created as a new policy area, out of the rural Group I areas, in 1986.

Gaithersburg was subdivided into Gaithersburg East and Gaithersburg West policy areas in 1986.

Gaithersburg East was further subdivided into Montgomery Village, Derwood/Needwood/Washington Grove/Shady Grove in the FY92 AGP, with part of Gaithersburg East becoming part of the City of Gaithersburg policy area.

Gaithersburg West was further subdivided into North Potomac and R&D Village policy area in the FY92 AGP, with part of Gaithersburg West becoming part of the City of Gaithersburg policy area.

Germantown West was subdivided into the Germantown Town Center and Germantown West policy areas in the FY92 AGP.

Kensington/Wheaton/Aspen Hill was subdivided into Kensington/Wheaton and Aspen Hill policy areas in the FY 90 AGP.

Silver Spring/Takoma Park was subdivided into the Silver Spring CBD and Silver Spring/Takoma Park policy areas in the FY 88 AGP.

Rockville was subdivided into Rockville City, with part of Rockville becoming part of Derwood/Needwood/Washington Grove/Shady Grove, and R&D Village in the FY92 AGP.

Chapter 5

Capital Improvements Program Recommendations

V. RECOMMENDATIONS FOR THE CAPITAL IMPROVEMENTS PROGRAM

1. INTRODUCTION

Recognizing the interdependence of the Annual Growth Policy, the County's Capital Improvements Program (CIP), and the County's master plans, the Planning Board has included a discussion of recommended CIP projects in previous years' AGP drafts. The goal has been to offer the Board's guidance on the CIP issues with which the Board is closely involved, namely:

- Capital projects which could relieve subdivision moratoria in policy areas currently in moratorium; and
- Capital projects which the Planning Board considers to be of top priority to implement master plans and functional plans adopted by the Council.

The previous section discussed how the staging ceilings and the net remaining capacity has varied over the past several years, identified which policy areas have moratoria on new subdivisions, and described strategies for ending these moratoria, including construction of capital facilities. This section discusses recommendations for the Montgomery County Capital Improvements Program.

2. THE PLANNING BOARD'S CIP RECOMMENDATIONS: FUNCTION AND PROCESS

As the County continues to respond to the fiscal pressures which are affecting local governments all across the country, the Planning Department has moved in recent years to strengthen the value of the Planning Board's comments on the County's CIP. While the Board continues to offer formal comments and recommendations each January in response to the Executive's Recommended CIP, Planning Department staff have also been providing the staffs of each Executive agency with preliminary comments in the summer months before the agencies begin to draft individual project description forms.

Because these comments reflect the Department's priorities for implementing adopted master plans and functional plans, as well as development capacity concerns, staff has been endeavoring to strengthen the linkages between the master plans, the CIP, and the AGP. In this Annual Growth Policy report, the CIP Recommendations section has been expanded to include non-transportation projects. Additionally, the recommended package of CIP projects has been included in the AGP Resolution to allow review by County Council and communication to the County Executive for possible inclusion in the FY95-00 CIP. The chart on the following page summarizes these linkages.

The current General Plan Refinement effort recognizes the importance of establishing priorities for the provision of public facilities. One of the proposed objectives in the preliminary draft is to: "give high priority to those areas of greatest employment and residential density when allocating public investments in community facilities." Among the strategies offered to meet this

Master Plan – AGP – CIP Connections

	Purpose	Timing	Linkage	New Emphasis
Master Plan	<ul style="list-style-type: none"> ● Long-range Vision ● Establishes Broad Public Policies 	<ul style="list-style-type: none"> ● Useful Life of Plan is 10–20 years 	<ul style="list-style-type: none"> ● Provides AGP & CIP with Project Lists & Staging Guidance 	<ul style="list-style-type: none"> ● Stages & Triggers ● Ongoing Monitoring ● 5–yr Status Reports <p>4</p>
Annual Growth Policy	<ul style="list-style-type: none"> ● Establish Staging Ceilings ● Identifies Priority Projects to Increase Staging Ceiling Capacity and to Implement MP and Functional Plans 	<ul style="list-style-type: none"> ● 1–4 years for Public Facilities ● Up to 12 years for Development Potential 	<ul style="list-style-type: none"> ● Stages MP Development w/ Public Facilities ● Inter-plan Summaries & Comparisons ● Priority Projects for Next 6–yr & Longer Range CIP 	<ul style="list-style-type: none"> ● CIP Priority Project Lists ● Inter-plan Summaries & Comparisons <p>8</p>
Six-Year Capital Improvements Program	<ul style="list-style-type: none"> ● Fiscal Policies ● Establish County-wide Project Priorities 	<ul style="list-style-type: none"> ● 1–6 years & Beyond 	<ul style="list-style-type: none"> ● Provides Facilities for Implementation of MP ● Provides Programmed Projects for AGP 	<ul style="list-style-type: none"> ● Closer Relationship to Priorities Established in MP & AGP <p>12</p>
Long-Range Capital Facilities Program	<ul style="list-style-type: none"> ● Longer Term County-wide Capital Facilities Needs & Funding Strategies 	<ul style="list-style-type: none"> ● 7–15 years 	<ul style="list-style-type: none"> ● Identifies Future Capital Needs for MP ● Provides Sense of Affordability for AGP ● New projects for 6–yr CIP 	<ul style="list-style-type: none"> ● OPI Initiative <p>16</p>

Source: Montgomery County Planning Department

objective is one to: "develop a long-range, comprehensive plan for the community and facility and utility needs of County government."

The Planning Department has also been studying alternatives for enhancing the usefulness of the capital facilities recommendations in master plans. This effort recognizes that the timing of facility construction can be a critical factor in implementing plans. Some County master plans, such as Germantown, have included phasing elements. Structuring future master plan phasing elements to provide more guidance in the timing and sequence of capital facilities will make it easier to develop a CIP that serves both the immediate and long-range needs of the County. The Planning Department intends to use future AGPs to compare and prioritize the facility needs of master plans in light of their staging recommendations.

The scope of the Department's semi-annual CIP review has also expanded to include a more comprehensive look at the fate of capital projects included in master plans and considered, at the time of the plans' adoption, critical to the implementation of the plans. Current and proposed capital projects are reviewed from a longer-term historical perspective and in the context of progress toward achieving long-range goals and objectives. Planning staff has made significant progress with the historical review and expects to complete it in time for the Board's CIP review in January.

In June 1992, Planning Department staff transmitted its preliminary recommendations for the FY94-99 CIP. The recommendations included a number of projects the Department considers top priority for subdivision moratorium relief and to implement master plans and functional plans adopted by the Council. Additional comments of a technical nature were also transmitted.

It is expected that these comments will form the initial basis for the Planning Board's review of the Executive's Recommended CIP once it is released at the beginning of January.

3. CAPITAL IMPROVEMENTS PROGRAM RECOMMENDATIONS

The following list of recommended CIP projects are classified by the implementing agency to facilitate incorporation into the CIP document. Where appropriate, summaries of technical comments are also included. Recognizing fiscal realities, new project recommendations have been kept to a minimum. Those included address immediate and pressing County needs.

A. Priority Transportation Projects

The Planning Department is recommending 11 existing and four new transportation projects be given priority in the CIP this year, down from 20 existing and four new projects last year. Projects were dropped from last year's list if substantial progress was made on the project in the past year. The Department also recognized that a smaller list of the most critical projects would be more useful to the Executive agencies. The Department highlighted two existing and two new projects by designating them "highest priority." These

projects are considered by the Department to address four of the most pressing transportation needs in the County.

Highest Priority (existing):

- MD 124 (A-12) Extension (Phase II)
- I-270 Overpass/Westlake-Fernwood

Highest Priority (new):

- Germantown Town Center Improvements
- Transit Access Improvements

Priority Existing

- Father Hurley Boulevard/Ridge Road Extended
- Silver Spring Road Improvements
- Friendship Boulevard
- Middlebrook Road
- Street Lighting
- Annual Sidewalk Program
- Annual Bikeway Program
- Tree Planting in Public Right-of-Way
- Garage 60 Ellsworth Avenue

Priority New Projects

- New Sidewalks to Serve Existing Affordable Housing
- Old Columbia Pike Reconstruction

In addition to the priority projects listed above, the Planning Department encourages progress on projects that have been counted as available in setting staging ceilings for the FY94 Annual Growth Policy. These projects are listed in Appendix 6. The first table gives those county, state, and municipal transportation projects which have been relied upon in setting the staging ceilings for the FY94 AGP.

The second table in Appendix 6 shows those transportation projects which have not yet been relied upon to provide staging ceiling development capacity. There are some 27 projects in Table 2 of Appendix 6 which are drawn from the County's CIP (others are from the state and municipal capital programs). The Planning Department suggests that, of the projects listed in this table, the projects that would serve policy areas which currently have moratoria on new subdivisions projects should also be a priority to maintain or accelerate their expenditure schedules.

Funding Recommendations for Maryland Department of Transportation Consolidated Transportation Program (CTP)

The timely implementation of transportation improvements by the Maryland Department of Transportation (MDDOT) and its State Highway Administration (SHA) is very critical to the success of the administration of the Adequate Public Facilities Ordinance and the Annual Growth Policy. Over the past year, there were significant changes in state and federal transportation funding, and in planning and capital program expenditures, that will have an effect on the FY94 and subsequent Annual Growth Policies. The availability of federal funding for

transportation improvements and services becomes a major determinant in the overall decision-making regarding which transportation improvements get programmed.

The Intermodal Surface Transportation Efficiency Act (ISTEA) was enacted in December of 1991. ISTEA provides authorization for a level of federal funding which represents a significant increase over previous years. There was a major redefinition of categories for funding including substitutability between categories. In addition, ISTEA also had changes in the instructional rules and regulations for the selection and determination of which projects became programmed. How instructional changes relate to the decision-making process under Maryland state law are still being sorted out.

In the Spring of 1992, the State of Maryland increased the gasoline tax and other related transportation fees in order to provide sufficient levels of state funding to match the levels of federal revenue. During the debates and discussions over the appropriate way to do that, various recommendations and commitments were made by local and state officials regarding the relative priority for implementation of the different transportation improvements. Those programming priorities were initially presented by MDDOT during the summer of 1992. They are currently being presented in more detail to each of the local jurisdictions as part of the presentation of the Consolidated Transportation Program (CTP) throughout the state. The presentation to the Montgomery County elected officials is currently scheduled for October 29, 1992.

The Planning Board will be developing comments and recommendations during November in time for the public hearing by the elected officials on the Draft CTP. The initial materials related to revisions to the CTP, presented by MDDOT in the summer of 1992, were not sufficiently detailed to fully anticipate which projects could be considered for programming in the analysis for the FY94 AGP. Based upon informal coordination with MDDOT staff, a list of several new projects has been anticipated in time for the FY94 AGP draft analysis. It should be pointed out, however, that because pending presentations and discussions associated with the elected officials' meetings on the draft CTP, there may be subsequent modifications to this list of anticipated projects. The particular projects anticipated are discussed in more detail in the above section on the proposed FY94 staging ceilings. The recommendations and comments of the Planning Board on the draft CTP, yet to be developed, will be incorporated in the Planning Board's Final Draft of the FY94 AGP.

B. Public School Projects

Planning Department recommendations to Montgomery County Public Schools are based on the presumption that the department can offer additional and valuable perspective to MCPS on such issues as community interest, demographic trends, environmental concerns, and so forth. Public school facility issues are not independent of concerns that fall under the purview of the Planning Department but which directly affect the community school system, such as master plan implementation and community revitalization projects. Summaries of the Planning Department's recommendations are listed on the next page.

Priority Public Schools Projects

Blair High School

The Planning Department recommends that the Board of Education identify an appropriate site and relocate the Blair High School campus. While both locations identified so far have notable disadvantages, they are both superior to further additions to the existing Blair campus.

Eastern County Schools

The Planning Department recommends that funding be provided to address the known capacity needs for much of the eastern part of the County, including the Sherwood, Paint Branch, and Springbrook clusters. An additional high school will be necessary and has already been preliminarily identified. Site selection and appropriate budgeting for this \$30 million project must be addressed in the FY 1994-99 CIP.

Paint Branch E.S #7

The Planning Department recommends that the strongest possible consideration be given to selecting a site outside of Upper Paint Branch watershed, consistent with the intent of the master plan.

Magruder High School Addition and Second Gymnasium

Candlewood Elementary School Addition

Monocacy Elementary School Addition and Modernization

Damascus High School Addition and Modification

Damascus Middle School #2

The Planning Department recommends that the above projects remain on schedule. Regarding the Damascus projects: with the recent approval of HOC housing projects in the Damascus area, school enrollment may be even higher than anticipated and these projects will help accommodate the additional students.

Current School Modernizations/Renovations

Future School Modernizations/Renovations

The Planning Department supports the evaluative process used to prioritize projects within these umbrella PDFs and asks to be included in the process.

C: Environmental Protection Projects

The Planning Department's comments to most of the implementing agencies address environmental concerns about projects in that agency's CIP. The comments in this section list the four projects within the Department of Environmental Protection (DEP) CIP that the Planning Department considers to be of highest priority. The first, Watershed Studies/Resource Mitigation Bank, is recommended as a new project.

Highest Priority DEP Projects

Watershed Studies/Resource Mitigation Bank

Landfill - Site 2

Stormwater Management Retrofit

Miscellaneous Stream Valley Improvements

D. Housing and Community Development Projects

The Planning Department recommended three priority projects related to housing and community development. Two of the projects serve Silver Spring; the other, the Germantown Town Center. The Germantown Town Center project is a new one and would provide funding to implement the recommendations found in the Germantown Master Plan and the Germantown Town Center Design Study. The Planning Department also offered continued support for two projects that it considers important to the community.

Priority Housing and Community Development Projects
CDBG Capital Appropriation/Silver Spring Retail Development
Montgomery Hills Streetscape Improvements
Germantown Town Center Improvements

Ongoing Projects Cited by the Department for Support
Sandy Springs Neighborhood Improvement Program
Montgomery Housing Initiative

E. Family Resources Projects

Noting that about one-fifth of the County's population aged 75 and over lives in Bethesda-Chevy Chase, the Planning Department recommends that the Department of Family Resources consider adding a senior center as a new project in the FY94-99 CIP. The Bethesda-Chevy Chase Master Plan recommends a senior center.

F. Facilities and Services Projects

The Planning Department's recommendations to the Department of Facilities and Services include technical comments on three existing projects and propose one new project.

Expansion or Relocation of Silver Spring Fire Station

The Planning Department recommends this new project in accordance with the Silver Spring Draft Sector Plan and the Draft Master Plan for Fire, Rescue and Emergency Medical Services.

Eastern County Government Services Center

The Planning Department's comments focus on environmental concerns, suggesting that the center not be located within the environmentally-sensitive Paint Branch watershed and that the site have sufficient land for on-site SWM controls.

Burtonsville Elementary School

Burtonsville Fire Station Relocation

The Planning Department supports the construction of a new fire station, but notes that the resulting disposition of the Burtonsville Volunteer Fire Company's property will leave the elementary school without a public right-of-way for ingress and egress.

G. Washington Suburban Sanitary Commission Projects

The Planning Department's comments on WSSC projects include a general recommendation that when it is known that environmental mitigation measures beyond the norm are needed, that WSSC include the cost of these mitigation measures in the CIP project and indicate their inclusion in the project description. The Department also suggests that the Potomac Bi-County Supply Main undergo mandatory referral because the scope, cost and impact of the project deserve a review more inclusive of public input than the CIP process affords.

Wheaton Water Pumping and Storage Facilities

The Planning Department recommends making this project a separate PDF in keeping with the Montgomery County Council's recommendation and that this and similar facility siting efforts undergo mandatory referral.

Wheaton High Zone Water Main

The Planning Department recommended that alignment selection and conceptual design be coordinated with the Aspen Hill planning staff to avoid precluding any of the recommendations for Georgia Avenue now being developed as part of the Aspen Hill Plan Update.

Northwest Branch, Branch "E" Relief Sewer

Although this project was deleted, the Parks Department noted that if it is revived, they will have concerns about the impact on the Norwood Village Neighborhood Conservation Area and should be contacted early in the process.

H. Revenue Authority Projects

The Planning Department supports keeping the Laytonsville and Poolesville Golf Courses on schedule; but voiced a number of environmental concerns about the Hampshire Greens Public Golf Course, including the size. The Department notes that the Revenue Authority agreed during the Planning Board's review to downsize the course to 18 holes on 197 acres. The current PDF shows 27 holes on 250 acres.

Chapter 6

FY 93 Adopted Annual Growth Policy Resolution

COUNTY COUNCIL FOR MONTGOMERY COUNTY, MARYLAND

By: County Council

Subject: Approval of FY 93 Annual Growth Policy

Background

1. Bill 11-86 requires that no later than June 30th of each year, the County Council must adopt an Annual Growth Policy (AGP) to be effective throughout the next fiscal year, providing policy guidance to the various agencies of government and to the general public on matters concerning land use development, growth management and related environmental, economic and social issues.

2. On January 1, 1992, in accordance with the requirements of Bill 11-86, the County Executive transmitted to the County Council his comments and recommendations on the FY 93 Annual Growth Policy based on the Final Draft Annual Growth Policy submitted by the Planning Board on November 27, 1991.

3. In addition, the Final Draft Annual Growth Policy report as submitted by the Planning Board contained supporting and explanatory materials including forecasts for the most probable trends in population and households, a set of recommended growth capacity ceilings for each policy area within the County, proposed guidelines for the administration of the Adequate Public Facilities Ordinance, and other background information relevant to the subject of growth policy. In addition, the Council had before it information contained in the Planning Department report "The State of Montgomery County's Development Economy", dated May, 1992, and the Germantown Transportation Staging Analysis, dated February, 1992. These materials were supplemented at Council worksessions.

4. On February 6, 1992, the County Council held a public hearing on the County Executive's recommended FY 93 Annual Growth Policy.

5. On May 15, 1992, the County Council adopted the Capital Improvements Program for fiscal years 1993-1998.

6. On June 11, 1992 and June 18, 1992, the Council conducted worksessions on the Annual Growth Policy, at which time careful consideration was given to the public hearing testimony, updated information, recommended revisions and comments of the County Executive and Montgomery County Planning Board, and the comments and concerns of other interested parties.

7. The County Council reviewed the facts and assumptions underlying this

Annual Growth Policy. This included: 1) a detailed review by policy area of existing and projected transportation facilities and conditions; 2) discussion of the allocation of transportation capacity between jobs and housing, the "pipeline" of development, proposed staging ceilings, and remaining transportation capacity; 3) a review of the special ceiling allocation for affordable housing; 4) a review of the Annual Report of the Silver Spring Transportation Management District and issues related to ceiling capacity in the Silver Spring CBD policy area; and 5) a review of issues related to the determination of adequate public school facilities under this Resolution.

8. The Council recognizes efforts made by the Planning Board and the Executive to improve the consistency and reliability of the County growth management data base. These efforts have resulted in a reduction of errors from prior years. In this regard, the Council stresses the need for sustained administrative vigilance in assessing the validity of computer based systems and the reliability of data collection efforts. The Council recognizes that a quantitatively oriented system such as the Annual Growth Policy, though subject to limitations, can promote objectivity and fairness in land-use decision making.

Action

The County Council for Montgomery County, Maryland, adopts the background statement and approves the following Resolution:

The Planning Board's Final Draft FY 93 Annual Growth Policy and comments and recommendations of the County Executive have been reviewed and amended by the County Council, so that the following constitutes the entire Annual Growth Policy for FY 93:

I. Guidelines for the Administration of the Adequate Public Facilities Ordinance:

The Montgomery County Subdivision Ordinance, Chapter 50, Section 35(k) ("the Adequate Public Facilities Ordinance or APFO"), directs the Montgomery County Planning Board to approve preliminary plans of subdivision only after finding that public facilities will be adequate to serve the subdivision. This involves predicting future demand from private development and comparing it to the capacity of existing and programmed public facilities. The following guidelines describe the methods and criteria that the Planning Board and its staff must use in determining the adequacy of public facilities. These guidelines supersede all previous ones adopted administratively by the Planning Board to the extent that these guidelines conflict with previous ones. They also supersede those provisions of the Adequate Public Facilities Ordinance which were specified to apply only until the County Council had approved an Annual Growth Policy.

The Council accepts the definitions of terms and the assignment of values to key measurement variables which were used by the Planning Board and its staff, and accepted by the Executive, in developing the recommended Annual Growth Policy. The Council delegates to the

Planning Board and its staff all other necessary administrative decisions not covered by the guidelines outlined below. In its administration of the APFO, the Planning Board is directed to request and consider the recommendations of the County Executive and other agencies in determining the adequacy of public facilities.

Subdivision applications may be subject to two different types of test. One is called the Policy Area Transportation Review. The other is called the Local Area Transportation Review.

The Policy Area Transportation Review divides the County into policy areas. These are geographic areas for which the adequacy of public facilities is addressed on an area-wide basis, as follows:

- With regard to transportation, a staging ceiling may be established for each policy area.
- With regard to school facilities, a legislative determination will be made whether the school facilities for each cluster will be adequate.

The staging ceiling for a policy area is defined as the maximum amount of land development that can be accommodated by the existing and programmed public facilities serving the area, at an assigned level of service standard. The legislative directive concerning school policy areas reflects a determination whether additional development can be accommodated by the schools. The policy area staging ceilings and directives approved in this Annual Growth Policy are to remain in effect throughout FY 93 unless amended subsequently by the County Council after public hearing. However, the Planning Board may adjust the policy area staging ceilings, in accordance with the Board's administrative procedures, to reflect trip reduction programs, developer participation in capital improvement projects, or direction in this Resolution to adjust staging ceilings upon the occurrence of certain events.

Except for special circumstances which are described below (see discussions of "Ceiling Flexibility"), if a proposed subdivision is in a geographic policy area for which previously approved development (pipeline) exceeds the staging ceiling, or for which a negative school facility directive exists, then the Planning Board must find the public facilities to be inadequate.

The purpose of the Policy Area Transportation Review method for evaluating the adequacy of transportation facilities is to place the individual subdivision within the context of a comprehensive, countywide assessment, which takes account of, and properly allows for, the upstream and downstream traffic impacts of development in various geographic areas. Similarly, the purpose of the policy area directives concerning school facilities is to reflect the ability of the public school system to accommodate students from new development. The policy area ceilings and directives described in this AGP are based primarily on the public facilities in the Approved FY 93-98 Capital Improvements Program (CIP) and the Maryland Department of

Transportation FY 92-97 Consolidated Transportation Program (CTP). The Council also reviewed related County and State funding decisions, master plan guidance and zoning where relevant, and related legislative actions. These ceilings and directives and their supporting planning and measurement process have been the subject of a public hearing and review during worksessions by the County Council. Approval of the ceilings and directives reflects a legislative judgment that, all things considered, these staging ceilings and procedures constitute a reasonable, appropriate, and desirable set of interim growth limits, which properly relate to the ability of the County to program and construct facilities necessary to accommodate growth. These growth limits will substantially advance County land use objectives by providing for coordinated and orderly development.

These guidelines are not intended to be used as a means for government to avoid its responsibility to provide adequate public facilities. Annual review and oversight allows the Council to identify problems and initiate solutions that will serve to avoid or limit the duration of any moratorium on new subdivision approvals in a specific policy area. Further, alternatives may be available for developers who wish to proceed in advance of the adopted public facilities program, through the provision of additional public facility capacity beyond that contained in the approved Capital Improvements Program, or through other measures which accomplish an equivalent effect.

The administration of the Adequate Public Facilities Ordinance shall at all times be consistent with adopted master plans and sector plans. Where development staging in adopted master plans or sector plans are more restrictive than AGP guidelines, the guidelines in the adopted master plan or sector plan shall be used to the extent that they are more restrictive. More restrictive guidelines can be found in the Friendship Heights Sector Plan, the Silver Spring CBD Sector Plan, the Grosvenor Sector Plan, and the Nicholson Lane Sector Plan. The ceiling in the Potomac Policy Area is set at the zoning ceiling based on the policy in the Potomac Master Plan. Development in the Bethesda CBD is controlled by the cordon capacities established in the Bethesda CBD Sector Plan.

The ceiling in all Group I areas is set at the zoning ceiling subject to guidelines for Local Area Transportation Review and guidelines for water and sewerage facilities.

A. Guidelines for Transportation Facilities

(1) Policy Area Transportation Review

(a) Policy Areas; Establishment of Staging Ceilings

For the purposes of transportation analysis, the County has been divided into 292 areas called traffic zones as seen in Map 1. Based upon their transportation characteristics, these areas are grouped into transportation policy areas. In many cases, transportation policy areas have the same boundaries as planning areas, sector plan

areas, or master plan analysis (or special study) areas. The policy areas in effect for FY 93 are: Aspen Hill, Bethesda CBD, Bethesda-Chevy Chase, Cloverly, Damascus, Derwood/Needwood/Washington Grove/Shady Grove, Fairland/White Oak, Gaithersburg City, Germantown East, Germantown Town Center, Germantown West, Kensington/Wheaton, Montgomery Village/Airpark, North Bethesda, North Potomac, Olney, Potomac, R&D Village, Rockville City, Silver Spring CBD, Silver Spring/Takoma Park, and the Wheaton CBD.

The boundaries for the Silver Spring CBD and Bethesda CBD policy areas are shown on Map 2 and Map 3, respectively. The boundaries of the Germantown Town Center policy area are shown on Map 4. Detailed boundaries of other policy areas are shown in the Planning Board's Final Draft AGP.

The boundaries of the Gaithersburg City and Rockville City policy areas reflect existing municipal boundaries, except where the cities are expected to annex properties in the near future or where County regulated land is surrounded by city regulated land. The boundaries of these municipal policy areas do not automatically change with any changes in municipal boundaries but will require affirmative Council action.

Map 5 shows the policy areas, and the Standard of Transportation Level of Service assigned to each of them. These levels of service standards represent a statistical average over the whole policy area. They are used in the calculations in the traffic simulation model described below. In general, the average level of service standards posted for each policy area are based on a policy that it is appropriate to permit greater congestion to occur in areas in which greater transit availability provides an alternative mode of travel for many travelers in the area. In that way, there is an opportunity for an approximately equivalent overall transportation level of service to the residents and employees throughout the County.

Chart 1 provides a refined basis for showing the correspondence between transit availability and the average level of service standards. It is based primarily upon materials prepared during the development of the FY 92 Annual Growth Policy. In Chart 1, combinations of transit service that provide increased coverage, frequency, accessibility, and use are ranked as defining a higher level of transit service. Quantification is intended to serve as a guide and not as a prescriptive standard.

These underlying conceptual and operational measures of coverage, frequency, accessibility, and use have been combined in a quantitative fashion to describe and rank order the six different transit LOS categorical definitions in Chart 1. This approach takes into account fixed-guideway transit systems such as Metrorail, MARC commuter rail, or possible light rail trolley systems. It also applies to bus-based transit systems, high occupancy vehicle priority systems, and auto dependent transit systems which are based in large part on park/ride access as opposed to walk and bus access.

Through the use of a computerized traffic simulation model, the Planning staff has computed a balanced relationship between a programmed set of transportation facilities and a geographical pattern of jobs and housing units. Policy area ceilings have been established through a process which assigns a hypothetical future land use pattern (i.e., jobs, and housing units derived from interim market projections) to the County, and tests its traffic impact through the use of this model. Through a process of repetitive trial and error, this land use pattern has been modified so that it produces a traffic volume and distribution that is equivalent to the average level of service standard for each policy area.

The allocation of transportation capacity between jobs and housing by the County Council reflects its approach to the General Plan recommendation that jobs and housing be balanced. Attainment of that goal is often expressed by the ratio that describes the relationship between the number of employed residents per household to the number of jobs per household. Since the current jobs-to-housing ratio of existing and approved development is tilted towards jobs, allocations of new capacity as well as allocations of any reductions in capacity should generally favor housing. This may vary in policy areas with a significant staging ceiling deficit in jobs.

Some modifications to this approach may be made in specific policy areas to reflect the character of an area and its related development policies as set forth in the relevant master plan(s), the size and allocation of jobs and housing in the existing base and pipeline of development. Modifications may also be made to avoid or reduce the duration of any subdivision moratorium or to address specific equity considerations. The product of these adjustments is tested against the appropriate level of service in the transportation model to determine the specific ceiling allocation as described above. The staging ceilings established by this method are shown in Tables 1 and 2.

The traffic simulation model takes into account all existing and approved development and all eligible programmed transportation CIP projects. For these purposes, "approved development" includes all approved preliminary plans of subdivision. "Eligible programmed transportation CIP projects" include all County CIP, State Transportation Program projects, and City of Rockville or Gaithersburg projects for which 100 percent of the expenditures for construction are estimated to occur within the first four years of the applicable programs.

Because of the unique nature of the Georgetown Branch Trolley Project in comparison with other transportation systems which are normally used in calculating development capacity, it is prudent to approach the additional capacity from the system in a conservative way, particularly with respect to the timing of capacity and the amount of the capacity recognized. Therefore, the counting of capacity from the Georgetown Branch Trolley Project will not occur until the actual system is constructed and operated, or at least until there is

reasonable certainty as to its exact date of operation and amount of actual ridership.

The Planning Board is authorized to administratively adjust the staging ceiling for jobs in the Fairland/White Oak policy area by adding 1,000 jobs when the widening of US 29 over New Hampshire Avenue is published in the Draft State Consolidated Transportation Program as being completed by the end of FY 1996.

To promote better coordination between land-use planning and transportation planning objectives in the North Bethesda policy area and allow for more refined traffic analysis, the counting of additional capacity from the I-270 East Spur widening (except that which is already open to traffic), will be deferred pending consideration of the proposed North Bethesda master plan amendment and an expected subsequent proposed amendment providing for development staging within the area. The allocation of the additional capacity may be considered under an amendment to the FY 93 AGP or as part of the FY 94 AGP in conjunction with the creation of Metrorail Station policy areas within the existing North Bethesda policy area.

With regard to developer participation projects for MD 118, Father Hurley Boulevard, and MD 117, the counting of additional capacity from these roads must not occur until:

1. proposed developer contributions have been committed by written agreement with the Department of Transportation and the Planning Board;
2. construction of roads is certified in the Approved Road Program as having 100% of the funds appropriated for construction costs and the County Executive has determined that construction will begin within 2 years; and
3. conditions of preliminary plan approval ensure that construction of the proposed development will not precede construction of the necessary road capacity.

Planning staff shall keep a record of all previously approved preliminary plans and other data about the status of development projects, and continuously update the pipeline number of approved preliminary plans, thus constantly keeping in view, and presenting to the Planning Board, the amount of capacity still available under the adopted ceiling at any given time. The continuous updating shall include all changes to the amount of development approved under outstanding preliminary plans, with the exception of those which result from the discovery of accounting errors. Such errors shall be reported to the Council each year in May prior to the Council's adoption of the AGP, and shall be reported on a quarterly basis, or more frequently, to the Planning Board who may bring them to the attention of the Council if the Board judges them to be significant. (Tables 1 and 2 show the capacity remaining as of March 30, 1992.)

The Planning Board should maintain a periodically updated queue list of applicants for preliminary plan of subdivision approval.

When the subdivision pipeline has risen to meet the ceiling, no more subdivisions shall be approved by the Planning Board in that policy area, except under certain special circumstances, which are outlined below.

(b) Silver Spring CBD Policy Area Ceiling

The Silver Spring CBD was established as a separate Group VI Policy Area in 1987, as categorized on Map 5 and Chart 1. The boundaries of the policy area are shown on Map 2.

The job and housing ceilings for this Group VI Policy Area must meet the following administrative guidelines:

- All traffic limitations are derived from the heaviest traffic demand period, in Silver Spring's case, the p.m. peak hour outbound traffic;
- The average level of service for the surrounding Silver Spring/Takoma Park Policy Area must not be worse than the adopted average standard of D/E;
- The outbound traffic, including both local CBD traffic and through traffic, must not exceed the Silver Spring practical cordon capacity of 18,000 vehicles in the peak hour;
- The Planning Board and the Department of Transportation will implement Transportation Systems Management for the Silver Spring CBD; the goal of this program will be to achieve the commuting goals for transit use and auto occupancy rates set out below.

The County Government, through the Silver Spring Parking District, will constrain the amount of public and private long term parking spaces.

The staging ceilings shall be as shown in Tables 1 and 2. However, certain transportation assumptions used in the setting of staging ceilings in this policy area in 1987 have changed, including the deferral of some programmed intersection improvements, and certain traffic distribution and congestion assumptions. Accordingly, it is appropriate to reduce capacity for 1,000 jobs from the staging ceilings. The Planning Board shall administratively make this ceiling change and adjust the pipeline at the time a revised Silver Triangle preliminary plan and project plan is approved by the Board. If applications for revision are not received or approved, the reduction should be included in the Planning Board Final Draft FY 94 AGP or subsequent transmittals from the Board related to adoption of the FY 94 AGP.

The parking constraints and commuting goals needed to achieve satisfactory traffic conditions with these staging ceilings are as follows:

- **Parking constraint**

A maximum of 17,500 public and private long-term spaces when all nonresidential development is built; (this maximum assumes a peak accumulation factor of .9, which requires verification in Silver Spring and may be subject to revision). Interim long-term parking constraints will be imposed in accordance with the amount of interim development. Long-term public parking spaces will be priced to reflect the market value of constrained parking spaces.

- **Commuting goals**

For employers with 25 or more employees, attain 25 percent mass transit use and auto occupancy rates of 1.3 persons per vehicle during the peak periods, or attain any combination of employee mode choice that results in at least 46% non-drivers during the peak periods; and

For new nonresidential development, attain 30 percent mass transit use and auto occupancy rates of 1.3 persons per vehicle during the peak periods, or attain any combination of employee mode choice that results in at least 50% non-drivers during the peak periods.

Progress towards achieving these goals should be measured annually by using scientific and statistically valid survey techniques.

To achieve these goals it will be necessary to require developers of new development in Silver Spring to enter into traffic mitigation agreements and the employers and certain owners to submit transportation mitigation plans as set forth in Chapter 42A, Article II, of the County Code.

Each Annual Growth Policy will reflect the Annual Report of the Silver Spring Transportation Management District, which must include a report of the status of critical signalized intersections (as defined in the report of October 5, 1987). The Annual Growth Policy must include a projection of future traffic conditions based on intersection improvements in the proposed CIP and full achievement of the Transportation Management District goals. The Council will take this information into account in the decisions on the Growth Policy and the CIP.

In accordance with the amendment to the Silver Spring Sector Plan, subdivision applications for nonresidential standard method projects throughout the CBD may be approved for development or additions of not more than 5,000 square feet of gross floor area. However, if, for a particular use the addition of five peak hour trips yields a floor area greater than 5,000 square feet, that additional area may be approved for that particular use.

(c) Special Ceiling Allocation for Affordable Housing and Health Care Facilities.

The County's policy of balancing growth in each policy area with the supply of public facilities may have the effect of undermining other important County policies for the provision of: 1) a balanced and adequate housing supply, with emphasis on the availability of affordable housing for low and moderate income families; and 2) reasonably accessible health care facilities. This subsection provides a limited exception to policy area transportation review requirements to ensure that these policies are not undermined. The Planning Board may approve subdivision applications for affordable housing and health care facilities in any policy area with insufficient remaining capacity, according to the following guidelines:

(i) Affordable Housing

- (1) An affordable housing development is defined as a housing development which is either owned by the Housing Opportunities Commission or by a partnership in which HOC is the general partner; or, a privately-owned housing development in which 20% of the units are occupied by households at or below 50% of the area median income, adjusted for family size, or 40% of the units are occupied by households at or below 60% of the area median income, adjusted for family size. Such a development must be certified by HOC as having met the definition of affordable housing and the owner of that development must enter into an agreement with HOC to maintain the occupancy requirements for a period of at least 15 years. These requirements include the provision of any MPDUs.
- (2) Except as provided in paragraph (3), in a policy area with insufficient remaining capacity, the Planning Board may approve in FY 92 not more than:
 - (a) 125 units for projects owned or controlled by HOC;
 - (b) 300 units for privately owned affordable housing developments; or
 - (c) an aggregate of 300 units in a policy area with both HOC owned and controlled developments and privately owned affordable housing developments.
- (3) The Planning Board must not approve additional housing units in a policy area that has been in a moratorium for new housing subdivision approvals for more than 4 consecutive years if:
 - (a) the remaining capacity for the policy area is -2,000 housing units or more in deficit; and
 - (b) the Planning Board has cumulatively approved 500 housing units under this special ceiling allocation.

Subject to the housing unit cap under paragraph (2), approvals under this special ceiling allocation may resume if the deficit

in remaining capacity in the policy area has been reduced under -2,000 housing units (i.e., less negative than -2,000) but only to the extent that transportation capacity has increased (as calculated from the -2000 housing unit point) due to a programmed transportation improvement that is either under construction or is funded for construction in the fiscal year for which the special ceiling allocation is requested from the Planning Board.

If the subdivision moratorium is eliminated in a policy area subject to this paragraph and is later reinstated, the calculation of the number of cumulative housing units approved under this special ceiling allocation starts at zero.

(ii) Health Care Facilities - General

- (1) "Health care facility" and "medical service" have the meanings defined in Title 19 of the Health - General Article of the Maryland Code. "Health care facility" does, however, include kidney disease treatment facilities. It includes a medical office building and medical or dental clinic, as permitted in the zoning ordinance, provided that no general office space is leased or otherwise made available. It does not include home health care agencies.
- (2) Assuming all other requirements for preliminary plan approval are met, and subject to all limitations of this subsection, the Planning Board may grant a special ceiling allocation for a health care facility if:
 - (a) a State certificate of need has been issued for a health care facility requiring such approval; or
 - (b) for facilities not requiring a certificate of need, a determination is made under this paragraph that:
 - (I) a need exists for the proposed health care facility due to an insufficient number of practitioners or facilities providing similar medical services presently available to existing or previously approved concentrations of population within the policy area and that the applicant reasonably can be expected to serve that specific need; and
 - (II) the needs to be served by the health care facility cannot be reasonably accommodated in existing or previously approved (but unbuilt) general office space within the policy area.

(iii) Health Care Facilities - Procedures

- (1) Upon receipt of a request for a special ceiling allocation under subparagraph (ii)(2)(b), the Planning Board must refer the request to: (1) the Office of Zoning and Administrative Hearings with procedural instructions for a hearing on the request and;

(2) the Director of the Department of Health for the director's recommendation on the issue of need under subparagraph (ii)(2)(b)(I).

- (2) The applicant must voluntarily consent to a deferral of its application before the Planning Board until after completion of proceedings before the hearing examiner. Requests must be considered on a first come, first served basis in the making of the request for the special ceiling allocation. The Director of Health must make its recommendation to the hearing examiner which shall become a part of the hearing record. The hearing examiner must transmit both the record and a recommendation to the Planning Board in accordance with the Board's procedural instructions. The Planning Board may rely on the record before the hearing examiner without need for further testimony. As with other subdivision issues, the applicant has the burden of producing evidence to support its request and the burden of proof on all applicable standards.

(iv) Health Care Facilities - Findings

- (1) In making a determination of need under subparagraph (ii)(2)(b)(I), the following factors, among other relevant information, should be considered: (1) the recommendation of the Director of the Department of Health; (2) any state or local health plan for the area; (3) the type of medical service and number of practitioners providing the service who are located within the policy area or within a reasonable distance in contiguous policy areas; (4) the business plan of the applicant; (5) occupancy projections, including proposed lease or similar arrangements; and (6) any proposed acquisition or relocation of specialized medical equipment.
- (2) In making a determination on the practicality of existing or planned general office space to reasonably accommodate the needs served by the proposed health care facility under subparagraph (ii)(2)(b)(II), the following factors, among other relevant information, must be considered:
- (a) the certainty of suitable general office space becoming available within the time frame proposed by the applicant;
 - (b) the need for special construction (i.e sound proofing, lead lined walls or other facilities or construction not normally provided in general office space), plumbing, electrical (i.e. dedicated lines for special equipment), or similar requirements for at least a majority of occupants;
 - (c) if otherwise suitable general office space is in close proximity to or is likely to serve (based on proposed lease or similar arrangements) other health care facilities, medical practitioners, or related services; and

- (d) the likelihood that otherwise suitable general office space will be able to satisfy the needs identified under subparagraph (ii)(2)(b)(I), based on the current marketing plans of the owner of the general office space, cost to the practitioner or health care facility, or other market factors.

A negative finding under either item (a), (c), and (d), above, or an affirmative finding under item (b), above, is sufficient to satisfy the standard under subparagraph (ii)(2)(b)(II).

(v) Health Care Facilities - Special Limitations

- (1) The Planning Board must not approve a preliminary plan for a medical office building or medical or dental clinic under this paragraph that is expected to produce more than 50 new or additional jobs.
- (2) A health care facility must not be granted more than one special allocation under this paragraph.
- (3) Not more than 50 jobs may be approved in a policy area, or 100 jobs, in the aggregate county-wide, in FY 93.
- (4) The applicant must enter into an agreement with the Planning Board to maintain the development as a health care facility for a period of at least 15 years and to undertake appropriate traffic mitigation measures.

(vi) Special Ceiling Allocations - General Requirements

- (1) Any development approved under this subsection must meet all zoning requirements and all other subdivision requirements, including standards for local area transportation review.
- (2) Development approved under this subsection will be added to the pipeline.
- (3) The final draft annual growth policy for FY 94 must contain a list of all pending or approved development under this subsection.

(d) Ceiling Flexibility for Developer Participation Projects

Staging Ceiling Flexibility allows the Planning Board, after considering the recommendation of the County Executive, to approve a preliminary plan application which exceeds the staging ceiling. In allowing the staging ceiling to be exceeded, caution should be exercised to assure that the average level of service for the relevant policy area is not adversely affected. Except as otherwise expressly stated in this subsection, the same level of service criteria already established in the Annual Growth Policy shall be used in evaluating an application to be approved under these ceiling flexibility provisions.

In general, such approval above the staging ceiling shall be conditioned upon the planned and scheduled construction by either the applicant and/or the government, of some public facility projects, or other appropriate capacity measure, (such as the private operation of a transit program) which, if added to the approved CIP or CTP programmed facilities, will add capacity or its equivalent to the existing facility system and result in no lessening of the area-wide level of service.

In general, the capacity addition must be scheduled for completion at the same time or before the proposed development is to be completed. The application must also be approved under Local Area Transportation Review standards. The nature, design and scale of the additional project or program must receive prior approval from the relevant governmental agencies responsible for constructing or maintaining such facilities or programs. The recommendation of the Executive also will be evaluated carefully.

Both the subdivision plan and the necessary additional facilities must be in accordance with an adopted master plan or other relevant policy statement; the design of the facilities must be subject to mandatory referral to the Planning Board; and the applicant and the relevant public agency must execute an appropriate public works agreement prior to record plat approval.

The phrase "additional transportation facilities" means transportation facilities other than those on which the policy area staging ceilings of the current Annual Growth Policy are based:

(i) Full-Cost Developer Participation

In cases where the applicant agrees to pay for the full cost of all the additional necessary public facilities, and the relevant administering agency has agreed, the Planning Board may approve subdivision plans whose public facility needs exceed the net remaining capacity under the adopted staging ceiling.

Where the applicant commits to provide the full cost of a transit, para-transit or ridesharing program, such application may be deemed to have passed the staging ceiling test, insofar as transportation is concerned, if the Board finds, after reviewing recommendations of the County Executive, that the program will reduce the number of peak-hour, peak-direction automobile trips by as many trips as would be generated by the proposed development. After a preliminary subdivision plan has been approved on this basis, later applications may be credited for reduced trips generated by the new proposal.

(ii) Partial-Cost Developer Participation

Partial-cost developer participation is available for certain types of development projects under certain circumstances described below. In cases of proposed partial-cost developer participation, the Planning Board may approve subdivision plans whose public facility needs exceed the net remaining capacity

only if the following criteria, standards and requirements set forth in paragraphs (1) and (2) below are met. Related guidance to the Planning Board is set forth in paragraph (5), including provisions relating to approval of, and participation by, other subdivision applicants. Procedures and requirements for executive and legislative action for partial-cost developer participation are contained primarily in paragraphs (3) and (4).

(1) Eligible Project Criteria

- (a) The project has a development staging plan beyond 4 years and enables the consolidation or expansion of an employer already located in the County or allows the establishment of facilities for a new employer. Employer facilities must be primarily for specific and defined employment needs of the employer and not for the sale or leasing of speculative office, industrial or retail commercial space. The employer's business plan, purchase or lease arrangements, staging plan, occupancy projections, and other relevant factors should be considered to determine the primary purpose of the proposed facilities; or
- (b) The project has a development staging plan extending beyond 4 years and enables planned development of superior and integrated design and/or transit serviceability in zoning categories that expressly allow partial-cost developer participation as designated by the District Council;
- (c) The project is to be located in the Research and Development Village, including the County-owned Life Sciences Center, as identified in the approved and adopted Master Plan; or
- (d) The project is to be located in the Germantown Town Center, as identified in the approved and adopted Germantown Comprehensive Master Plan.

(2) Public-Private Participation Requirements

- (a) Additional transportation facilities proposed to serve an eligible project must be sufficient, when combined with net remaining capacity, to provide policy area capacity for both the eligible project and other completed subdivision applications that have been filed earlier than that of the eligible project within the policy area.
- (b) The applicant for the eligible project agrees to condition subdivision approval on a staging schedule which will link the issuance of specific building permits receivable in each staging period to the execution of specific transportation construction contracts in the same staging period.

- (c) The applicant for the eligible project must construct or agree to pay all costs for all additional transportation facilities other than those facilities currently included for start of construction within the first six years of the adopted CIP or within the State Consolidated Transportation Program (CTP).
- (d) The applicant for the eligible project agrees to contribute transportation facilities and/or cash in a minimum amount of the greater of the following:
 - 1. A total of 35% of the cost of all additional transportation facilities, with the cost determined as of the date of execution of the construction contract; or
 - 2. A contribution of 100% of the costs of all additional transportation facilities other than those facilities currently included for start of construction within the first six years of the adopted CIP or within the adopted CTP; such costs are to be determined as of the date of execution of the construction contract for that transportation facility; or
 - 3. Impact fees, if applicable, at the date of issuance of building permit.
- (e) All applicants with residential components agree to be subject to special conditions with regard to school capacity, as described in Section B, Guidelines for Public School Facilities, below.
- (f) The applicant for an eligible project must execute a memorandum of understanding with the County Executive prior to Council action under paragraph (4)(b) specifying the private sector commitments under this paragraph. A separate participating subdivision applicant may also execute the memorandum of understanding. An applicant must agree in the memorandum of understanding that the public improvement agreement be made a condition of subdivision approval.

(3) Procedures and Action - Executive

All formal requests for staging ceiling flexibility under this provision must be made in writing to the County Executive after the applicant has filed a complete subdivision application with the Planning Board. The County Executive must review the request and determine whether or not to recommend authorizing legislation and/or a CIP amendment. The following items, among other relevant factors, should be considered:

- (a) whether the proposed subdivision plan constitutes an eligible project and otherwise meets all requirements of this subsection;

- (b) whether the proposed additional transportation facilities are consistent with the Executive's transportation program in terms of timing, location, design and cost;
- (c) the effect of the proposal on County operating budget or capital programs;
- (d) the financial and managerial capability of the applicant to undertake all requirements of this subsection utilizing current estimates of rights-of-way, design, and construction costs, adjusted for inflation to the date expected for their payment;
- (e) the existence of unresolved transportation programming, fiscal, or other policy issues.

On not less than a quarterly basis, the County Executive must transmit to the Council and Planning Board all written requests for partial cost developer participation that were not recommended and a brief description of the reason. The Council may request the County Executive to reevaluate a request, provide greater detail, or initiate appropriate budgetary or legislative action.

(4) Procedures and Action - County Council

- (a) All proposed CIP amendments and requests for legislative special capital improvement project authorizations must be considered by the Council in accordance with all applicable fiscal and legislative procedures. In addition to any other information required to be submitted under law, the County Executive should submit to the Council information describing:
 - 1. the eligible project for which the facilities are necessary;
 - 2. the proposed staging schedule for both the facilities and the project;
 - 3. public facility programming issues;
 - 4. the impact on the County's finances including the affordability of the proposed public facility program; and
 - 5. a memorandum of understanding specifying, among other things, the private sector commitments under paragraph (2) above.

Before Council action, the Planning Board should comment on the public facility issues presented by the special capital improvement project legislation or CIP

designation, the relationship between the additional transportation facilities and the proposed staging schedule, the effect on policy area ceilings, and any other relevant matters, as appropriate.

- (b) For additional transportation facilities required under paragraph (2)(a), above, to be available for partial-cost developer participation under this subsection, the County Council must:
1. enact all authorizing legislation or resolutions that would be required under law for the facility; and
 2. designate the additional transportation facilities in the CIP, as appropriate for partial cost developer participation or as being fully funded by the private sector.

Transportation facility projects remain subject to all necessary applicable appropriations and federal, state and local regulatory or other approvals.

- (c) Subsequent to any favorable County Council action, the County Executive, or designee, must execute a detailed public improvement agreement that formalizes the memorandum of understanding. The County Executive must periodically report to the Council on the status of public improvement agreements under this subsection and notify the Council of any material changes in circumstances affecting its legislative actions under the partial-cost developer participation provisions.

(5) Planning Board Action; Other Subdivision Applicant Participation

- (a) In its determination of whether transportation facilities are adequate to meet the needs of an eligible project, the Planning Board may count those facilities that have received favorable Council action under paragraph (4)(b), above, for both policy area ceilings and local area transportation review, without the need for those facilities to be shown in the Approved Road Program.
- (b) The Planning Board may similarly count these facilities and approve a subdivision plan with a completed application filing date that is earlier than that of the application of an eligible project if the applicant agrees to participate in the provision of additional transportation facilities, on a proportional trip generation or other agreed cost basis, and in accordance with the staging and public school requirements set forth in paragraph (2)(b) and (e), above. A public improvement agreement may include all participating subdivision applicants.

- (c) A non-participating applicant with an earlier application filing date than the eligible project may have its application approved within the same general time period as the eligible project if it meets normal local area transportation review requirements; however, it must be conditioned so that building permits will be approved only when building permits for the eligible project or participating subdivisions are eligible for approval. A non-participating applicant remains subject to all local transportation area review and other regulatory requirements.

(iii) Miscellaneous Provisions

Further staging ceiling flexibility is not available in the Silver Spring CBD because traffic mitigation measures of the Transportation Management District have been relied upon to establish the ceilings for the Group VI Policy Area in Silver Spring.

(e) Ceiling Flexibility - De Minimis Impacts

The approval of preliminary plans which add only a few vehicle trips will be considered on a case-by-case basis by the Planning Board. In general, in policy areas with no ceiling balance (i.e., no remaining capacity), all land at one location for which zoning or other constraints permit no more than ten trips in total may receive approval of up to five trips. Non-residential plans submitted for the purpose of expanding structures which were completed prior to 1982, or which otherwise request additional development on land that was partially developed prior to 1982, may receive approval for additional development which adds no more than five trips. The term, "all land at one location," means all land that would be included in a determination of whether a project is a "significantly sized project" under the Planning Board's adopted guidelines for Local Area Transportation Review.

(f) Amendment of Policy Ceilings

From time to time, these staging ceilings may be amended by the Montgomery County Council, after public hearing, to reflect changing conditions such as additions to the Capital Improvements Program or the State's Consolidated Transportation Program, changing patterns of public facility usage, revised levels of public service, and other relevant criteria.

Policy area ceilings may also be amended by the County Council to resolve public policy conflicts and to accomplish a particular public policy objective.

(g) Allocation of Staging Ceiling to Preliminary Plans of Subdivision

The Planning Board allocates available staging ceiling capacity in a

policy area based on the queue date of an application for preliminary plan of subdivision approval.

(i) Assignment of queue date

The queue date of a preliminary plan of subdivision is the date:

- (1) a complete application is filed with the Planning Board;
- (2) a traffic study is filed, if required to obtain a new queue date under paragraph (iv)(2); or
- (3) 6 months after the prior queue date if the prior queue date expires under subparagraph (iii)(1)(a) and the application does not require a traffic study.

(ii) Calculation of available staging ceiling capacity

The Planning Board determines whether there is adequate staging ceiling capacity available for a project by subtracting the capacity required by projects with earlier queue dates from the remaining capacity on Table 2 as updated periodically. Based on this calculation, the Planning Board may:

- (1) approve a project for which there is sufficient capacity;
- (2) approve part of a project for which there is sufficient capacity, leaving the remainder of the project in the queue until additional capacity becomes available;
- (3) deny an application for a project for which there is insufficient capacity; or
- (4) defer approval of a project and leave the project in the queue until sufficient capacity becomes available for all or part of the project. In situations where there is insufficient capacity, staff must not schedule a hearing on the application unless the applicant requests one.

If there is sufficient capacity for a project based on the queue date, the Planning Board must not deny an application based on pipeline (but not staging ceiling) changes while the queue date is in effect.

(iii) Expiration of queue date

- (1) A queue date for an application for preliminary plan of subdivision approval expires:

- (a) 6 months after the queue date if there was sufficient staging ceiling capacity for the entire project on the queue date and the Planning Board has not approved the application or granted an extension of the queue date (see paragraph 2 below);
 - (b) 6 months after sufficient capacity becomes available for the entire project if a traffic study is not required under paragraph (iv)(1);
 - (c) 6 months after a traffic study is filed if required under paragraph (iv)(1); or
 - (d) on the applicant's failure to request background data, to submit a traffic study, or to submit a complete updated traffic study after notice that a study is incomplete, all within the time limits in subsection (iv).
- (2) The Planning Board may grant one or more 6-month extensions of a queue date if the applicant demonstrates that a queue date expired or will expire because of governmental delay beyond the applicant's control. The Planning Department may grant one 6-month extension of a queue date for Health Department approval of individual sewage disposal or wells. Any additional queue date extensions for Health Department approval may only be granted by the Planning Board.

(iv) Traffic studies

(1) Required when sufficient capacity becomes available.

The queue date of an application for which there is not sufficient staging ceiling capacity when the complete application is filed will expire when sufficient capacity becomes available, unless the applicant:

- (a) requests background data from the Planning Board to prepare a traffic study within 1 month after capacity becomes available; and
- (b) submits a traffic study within 1 month after receiving the background data. However, if the Planning Board provides the background data between June 1 and September 15, the study must be submitted by October 15.

(2) Required to obtain a new queue date after expiration

If the queue date of an application which includes a traffic study expires, an updated traffic study must be filed to obtain a new queue date.

(3) Notice of incomplete traffic study

The Planning Board must notify an applicant within 15 days after a traffic study is filed if the study is incomplete. An applicant must file a complete traffic study within 30 days of receipt of the notice that a study is incomplete.

(v) Special Ceiling Allocation for Affordable Housing

If an application for a preliminary plan approval that uses the special ceiling allocation for affordable housing is denied by the Planning Board after July 1, 1992, the applicant retains its original queue date and is subject to all other applicable provisions of this subsection.

(2) Local Area Transportation Review (IATR)

The traffic simulation model used for Policy Area Review addresses the average level of traffic in the policy area. If this were the only test, an area with acceptable average level of service could have one or more intersections, or roadway links, with unacceptably poor levels of service. It is necessary, therefore, that a local area test be applied to assure that new development is not allowed to cause such congestion.

Local Area Transportation Review shall, at all times, be consistent with the standards and staging mechanisms of adopted master plans and sector plans. In the Potomac Policy Area, only the areas contributing traffic to the following intersections will be subject to Local Area Transportation Review: (a) Montrose Road at Seven Locks Road; (b) Democracy Boulevard at Seven Locks Road; (c) Tuckerman Lane at Seven Locks Road; (d) Democracy Boulevard at Westlake Drive; (e) Westlake Drive at Westlake Terrace; (f) Westlake Drive at Tuckerman Lane; and (g) Bradley Boulevard at Seven Locks Road.

In the area designated as the Silver Spring CBD Policy Area, the Planning Board, in consultation with the Department of Transportation, will prepare performance evaluation criteria for its Local Area Transportation Review. These criteria will be used to accomplish: (a) safety for pedestrians and vehicles; (b) access to buildings and sites; and (c) traffic flow within the vicinity, at levels which are tolerable in an urban situation. The County Executive will publish a Silver Spring Traffic Management Program after receiving public comment and a recommendation from the Planning Board. This program will list those actions to be taken by government to maintain traffic flow at tolerable levels in the Silver Spring CBD, and protect the surrounding residential area.

Until a new sector plan is approved by the County Council, for

analysis of properties located within the Friendship Heights Central Business District (as defined by the 1974 Friendship Heights Sector Plan), any traffic trips from approved and/or built projects on certain properties in the District of Columbia which exceed the total of 2,329 new trips allocated to those same properties in the District of Columbia pursuant and subject to the August 30, 1973 statement of the Inter-Jurisdictional Policy Task Force on Friendship Heights (as set forth in Appendix "E" and referred to on pages 39-41 of the 1974 Friendship Heights Sector Plan), shall not be used in making a determination that local intersections are operating at adequate levels of service.

Local Area Transportation Review must be undertaken for subdivisions which would generate 50 or more peak hour automobile trips in either of the following circumstances:

- For the policy area, total approved development is within 5 percent of the policy area ceiling; or
- For the local area, the proposed development is located near a congested area.

In administering the Local Area Transportation Review (LATR), the Planning Board must not approve a subdivision if it finds that an unacceptable peak hour level of service will result after taking into account existing roads, programmed roads, available or programmed mass transportation, and improvements to be provided by the applicant. If the subdivision will affect an intersection, or roadway link for which congestion is already unacceptable, then the subdivision may only be approved if it does not make the situation worse.

The mid-point of Level of Service E is presumed to be the condition under which a roadway intersection or link is operating at maximum capacity. Critical Lane Volumes or Link Level of Service higher than the mid-point of LOS E are deemed to reduce the overall efficiency of the road network. For Groups II to V Areas, a peak hour level of service below the midpoint of LOS E is unacceptable for Local Area Transportation Review. In Group I Areas, Level of Service below Level of Service D is unacceptable for Local Area Transportation Review. Administrative guidelines for LATR in the Silver Spring CBD Policy Area have been adopted by the Planning Board.

After consultation with the Council, the Planning Board may adopt administrative guidelines that allow use of a "delay" or queuing analysis, different critical lane volume standards, or other methodologies, to determine the level of congestion in appropriate geographic locations such as in urbanized areas, around Metrorail stations, or in specific confined areas planned for concentrated development related to other forms of transit.

The nature of the LATR test is such that a traffic study is necessary if local congestion is likely to occur. The Planning Board and staff will examine the applicant's traffic study to determine whether

adjustments are necessary to assure that the traffic study is a reasonable and appropriate reflection of the traffic impact of the proposed subdivision after taking into account all approved development and programmed transportation projects.

For Local Area Transportation Review purposes, the programmed transportation projects to be considered are those included in the most recent edition of the County Executive's Approved Road Program (ARP). The Approved Road Program shall include only roads programmed in the current approved Capital Improvements Program and the Maryland Consolidated Transportation Program for which:

- (1) The County Executive has determined that construction will begin within two years of the effective date of the approved road program; and
- (2) In the case of the County CIP, 100 percent of the expenditure for contracts, have been appropriated.

For these purposes, roads required under Section 302 of the Charter to be authorized by law are not to be considered programmed until the time for petition to referendum has expired without a valid petition, or the authorizing law has been approved by referendum.

The Planning Board has adopted guidelines for the administration of Local Area Transportation Review. To the extent that they are consistent with these legislative guidelines, the Planning Board guidelines may continue to apply or to be amended as the Planning Board deems it necessary to do so.

In its administration of Local Area Transportation Review, the Planning Board shall give careful consideration to the recommendations of the County Executive concerning the applicant's traffic study and proposed improvements or any other aspect of the review.

Approved guidelines for administration of the Local Area Review Transportation Improvement (LARTI) program are attached to this Resolution as Appendix I. The program is funded to the extent authorized under an approved Capital Improvement Program project description form. Chapter 11B (Contracts, Procurement Matter, etc.) of the County Code may not be construed to apply to the use of funds under the LARTI program. This program is a pilot program and not intended to permanently substitute public funds for transportation improvements offered by a developer in exchange for approvals.

B. Guidelines for Public School Facilities

(1) Geographic Area

For the purposes of public school analysis and local area review of school facilities at time of subdivision, the County has been divided into 21 areas called high school clusters as shown in Map 6. These areas coincide exactly with the cluster boundaries used by the Montgomery County Public School system.

The Council evaluates available capacity in each high school cluster and compared enrollment projected by Montgomery County Public Schools for each fiscal year with projected school capacity four years out.

If insufficient capacity is available, the Council determines whether an adjacent cluster or clusters has sufficient capacity to cover the projected deficit in school capacity. The Council's groupings are only for the administration of the Adequate Public Facilities Ordinance and are not in any way a required action by the Board of Education in exercising its power to designate school service boundaries.

(2) School Capacity Measure

The Council uses 110 percent of Council funded program capacity as the school capacity measure in the administration of the Adequate Public Facilities Ordinance. This capacity measure does not count relocatable classrooms in computing a school's permanent capacity.

Based on the approved FY 93-98 CIP, the Council funded regular program capacity is a class size of 25 for grades 1-6, 44 for half day kindergarten where it is currently provided, 22 for all day kindergarten where it is currently provided, and an effective class size of 22.5 for secondary grades.

(3) Grade Levels

Each of the three grade level clusters, namely elementary, intermediate/middle school, and high school are assessed separately as part of the Annual Growth Policy.

(4) Determination of Adequacy

Using the methodology specified in paragraphs 1-3 of this subsection, the Blair, Springbrook, and Paint Branch clusters show some shortfalls in capacity for FY 96. Based on enrollment projections and current MCPS program capacity assumptions, the approved CIP shows significant capacity shortfalls in the Blair cluster at both the high school and mid-level schools. The capacity shortfalls in the Springbrook and the Paint Branch clusters are at the high school level and are of a more marginal nature. In addition, excess capacity exists in the Sherwood cluster (adjacent to the Paint Branch cluster) that may be considered to offset some of the numerical deficit shown for Paint Branch. See, Tables 3-5.

In the Blair cluster, the Council has approved a "place holder" for a Blair High School Project and a process is underway, in conjunction with the Board of Education and interested citizens, to assess alternatives and move forward with a specific solution. As an adjacent cluster, the capacity provided by this project could later

be considered by the Council to support a conclusion that capacity in the Springbrook cluster is adequate for AGP purposes. For the Paint Branch cluster (and possibly Springbrook), the Council believes that administrative actions of the Board of Education are available which would alleviate any short-term capacity problems while long-term solutions are developed. For these reasons, and because the Council and Board of Education are actively pursuing appropriate solutions for additional future school capacity in the eastern portion of the County, the Council believes that it would be premature to declare school capacity in FY 1996 to be inadequate in these clusters at this time.

The Planning Board, in its review of preliminary plans of subdivision in FY 93, shall consider schools to be adequate for APFO purposes in all clusters.

(5) Affordable Housing

Because school capacity is determined to be adequate under paragraph (4) of this subsection, the Special Ceiling Allocation for Affordable Housing may be invoked only with respect to transportation ceilings. The need for such a special ceiling allocation with respect to school capacity will be considered at such time that capacity is determined to be inadequate in a particular cluster.

(6) Ceiling Flexibility for Partial Cost Developer Participation

When a subdivision with a residential component is approved for transportation capacity under the provisions of the Partial Cost Developer Participation subsection, the Planning Board may approve the subdivision for school facility adequacy if: (a) the subdivision is located in a school cluster area that has been designated as adequate for school capacity; and (b) the applicant agrees to condition his subdivision approval on a staging schedule, which will require the applicant to receive a subsequent APF approval for school capacity for all of the housing units that are scheduled in his staging plan to receive building permits after the end of the four year period used in calculating school capacity in this Annual Growth Policy. This does not imply any obligation on the part of the Council to provide public school facilities in accordance with any staging plan and the applicant may provide private resources for school sites and/or school construction in order to assure adequate school capacity.

C. Guidelines for Water and Sewerage Facilities

In accordance with the language of the Adequate Public Facilities Ordinance itself, both for policy areas with a staging ceiling and in those without one, applications shall be considered adequately served by water and sewerage if the subdivision is located in an area in which water and sewer service is presently available, is under

construction, or is designated by the County Council for extension of service within the first two years of a current approved Comprehensive Water Supply and Sewerage Systems Plan (i.e., categories I, II, and III) or if the applicant either provides a community water and/or sewerage system or meets health department requirements for septic and/or well systems, as outlined in the Adequate Public Facilities Ordinance. These requirements are determined either by reference to the Water and Sewerage Plan, adopted by the Council, or by obtaining a satisfactory percolation test from the County Health Department.

Applications will only be accepted for further planning staff and Board consideration if they present evidence of meeting the appropriate requirements.

D. Guidelines for Police, Fire and Health Services

The Planning Board and staff shall consider the programmed services to be adequate for facilities such as police stations, firehouses, and health clinics unless there is evidence to believe that a local area problem will be generated. Such a problem is one which cannot be overcome within the context of the approved Capital Improvements Program and Operating Budgets of the relevant agencies. Where such evidence exists, either through agency response to the Subdivision Review committee clearinghouse, or through public commentary or planning staff consideration, a Local Area Review shall be undertaken. Such review shall seek a written opinion from the relevant agency, and will require, if necessary, additional data from the applicant, to facilitate the completion of the planning staff recommendation within the statutory time frame for Planning Board action. In performing this Local Area Review, the facility capacity at the end of the sixth year of the approved CIP shall be compared to the demand generated by the "most probable" forecast for the same year prepared by the Montgomery County Planning Department.

E. Guidelines for Resubdivisions

Applications to amend a previously approved preliminary plan of subdivision shall not require a new test for adequacy of public facilities in the following instances:

- Revisions to a preliminary plan which has not been recorded. Provided that the preliminary plan has not expired and the number of trips which will be produced by the revised plan is not greater than the trips produced by the original plan.
- Resubdivision of a recorded lot involving the sale or exchange of parcels of land (not to exceed a total of 2,000 square feet or one percent of the combined area, whichever is greater) between owners of adjoining properties for the purpose of small adjustments in boundaries.

- Resubdivision of a recorded lot involving more than 2,000 square feet or one percent of the lot area provided that less than three years have passed since preliminary plan approval; or if construction has begun on any portion of the preliminary plan, less than five years have passed since preliminary plan approval; or, if construction of an APF related road improvement required as a condition of the original preliminary plan is proceeding as scheduled, less than 10 years have passed since preliminary plan approval. In addition to meeting the requirements above, the number of trips which will be produced by the revised plan shall not be greater than the trips in the original plan.

II. Timely Adequate Public Facilities Determination and Local Area Transportation Review under Chapter 8 - Buildings.

- A. General.** Except as otherwise provided by law, an adequate public facilities determination or local area transportation review conducted under Article IV of Chapter 8 must use the standards and criteria applicable under Section I. of this Resolution when evaluating the adequacy of public facilities to serve the proposed development.
- B. Traffic Mitigation Goals.** Any proposed development that is subject to requirements for a traffic mitigation agreement under Article IV of Chapter 8 and Chapter 42A-9A of the County Code must meet the traffic mitigation goals specified in paragraphs (1) or (4), as appropriate.
- (1) Subject to paragraph (2), the portion of peak-period nondriver trips by employees of a proposed development must be at least the following percentage greater than the prevailing nondriver mode share of comparable nearby land use:
- | | | |
|-----|-------------------------|------|
| (a) | Group V Policy Areas: | 100% |
| (b) | Group IV Policy Areas: | 80% |
| (c) | Group III Policy Areas: | 60% |
| (d) | Group II Policy Areas: | 40% |
- (2) The portion of peak-period nondriver trips by employees calculated under paragraph (1) must not be less than 15% nor higher than 55%.
- (3) The applicant for a proposed development in a policy area specified under paragraph (1) is responsible for: reviewing existing studies of nondriver mode share; conducting new studies, as necessary, of nondriver mode share; and identifying the prevailing base nondriver mode share of comparable land uses within the area identified for the traffic study. Comparable land uses are improved sites within the area identified for the traffic study for the proposed development that have similar

existing land use and trip generation characteristics. As with other aspects of the traffic study required by Article IV of Chapter 8 of the Code, selection of the comparable studies and land uses to be analyzed and determination of the prevailing base nondriver mode share are subject to review by the Planning Department of the Planning Board and approval by the Department of Transportation.

- (4) Proposed development in the Silver Spring CBD must meet the commuting goals specified under Section I(A)(1)(b) of this Annual Growth Policy.
- (5) In accordance with Section 42A-9A of the Code, the applicant must enter into an agreement with the Director of the Department of Transportation prior to issuance of a building permit. The agreement may provide for a schedule for full compliance with the traffic mitigation goals. It must provide appropriate enforcement mechanisms for compliance.
- (6) As provided by law, these goals supersede traffic mitigation goals established under Section 42A-9A (a)(4) of the Code.

III. Process for Amending Annual Growth Policy

Chapter 33A, Division 2, of the Montgomery County Code provided that "the County Council may adopt a subsequent resolution, after public hearing, to amend the Annual Growth Policy." The amendment process should be reserved for situations in which a need arises to resolve broad policy issues without waiting for the annual cycle of revision. In such cases, the process should follow a format similar to the one provided for the annual revision process under Chapter 33A, consisting of the following steps:

- (1) A request for amendment must be made in writing to the Planning Board.
- (2) The Planning Board may, in response to such request or on its own initiative, prepare an amendment. The amendment must be accompanied by a statement of the severity of the problem addressed, the nature of the conflict in public policies which is involved, and approaches for resolving the conflict, including any specific recommendations. In cases where the Council or Executive requests an amendment which the Planning Board does not support, the Board must prepare a draft which complies with the original request, in addition to its own recommendations.
- (3) The Planning Board's amendment must be submitted to the County Executive, who may make revisions in the form of specific additions or deletions, and who must then make a recommendation on the amendment to the County Council.

- (4) After public hearing by the County Council, the Council may approve, approve with revisions, or disapprove, the proposed amendment.
- (5) The Planning Board's amendment must be forwarded to the County Executive not more than forty-five days after receipt of a written request from the Executive or Council. The Executive's recommendation must be forwarded to the County Council not more than thirty days after receipt of the Planning Board's amendment. The Council should act on the amendment not more than 45 days after the closing of the public hearing record.

IV. Issues to be Addressed During Next Fiscal Year

In adopting the FY 1993 Annual Growth Policy, the Council recognizes that not all aspects of a comprehensive approach to growth policy can be addressed within one year. To ensure that the policy making process continues to be developed and refined, the following matters are to be addressed by the Planning Board, Board of Education, and the County Executive during the next fiscal year for presentation to, and decision by, the County Council:

1. **Pipeline Analysis** - The Planning Board and Executive should analyze alternative assumptions about the absorption of the pipeline when evaluating adequate public facilities. Among other relevant issues, consideration should be given to a change in the law relating to time limits on the validity of an adequate public facility determination or otherwise discounting the pipeline in consideration of growth forecasts for APFO analysis.
2. **North Bethesda Policy Area** - See, Section I(A)(1)(a) at p. 7. The Executive should continue to develop the appropriate institutional, legal, and funding mechanisms necessary to implement transportation facilities and programs for the proposed metrorail station policy areas.
3. **Germantown Town Center Policy Area** - Council, Planning, and Executive staff must further analyze two options presented to the Council at its June 18, 1992 worksession intended to create staging ceiling capacity in the Germantown Town Center Policy Area. The first option consists of the following road improvements: construction of a portion of MD 118 Relocated, widening of Middlebrook Road, and improvements to the intersections at Wisteria Drive and Crystal Rock Drive and at Wisteria Drive and Great Seneca Highway. The second option consists of a set of non-highway improvements and programs that could justify a Level of Service Category III classification for the policy area. These non-highway improvements are: counting certain MARC improvements; establishing a transportation management district (TMD) or other device mandating trip mitigation and promoting ridesharing; an additional amount of bus service; some additional sidewalks and bikeways; and using a new local area transportation review standard.

In early fall, 1992, the Planning Board and Executive shall recommend a course of action that will meet the Council's goal of full build-out of the town center at an acceptable congestion level. The recommendation should reflect elements of both options. Other alternatives may be presented. The Planning Board and its staff shall be the lead agency in evaluating transportation planning elements. The Executive shall take the lead in evaluating and developing a plan to finance the recommended course of action.

4. **Traffic Mitigation** - The Planning Board should brief the Council no later than the fall, 1992, regarding its proposed traffic mitigation guidelines that were developed with input from the Traffic Mitigation Issues Group.
5. **Adequacy of Transportation Facilities - Methodology** - The Planning Board should take the lead, with the aid of the Executive, in re-evaluating:
 - a) how or whether the level of service on freeways should be included in the calculation of staging ceilings;
 - b) the desirability of increasing the number of level of service categories to be more sensitive to ridesharing, transit, and non-motorized transportation alternatives to auto travel. This effort should build upon the work prepared for the Staff Draft FY 92 AGP; and
 - c) the critical lane volume standards for Local Area Transportation Review. As part of this effort, the effect of varying the standard by policy area according to its level of service category should be examined.
6. **Adequacy of Public School Facilities - Methodology** - The Education Committee will continue to review issues related to the determination of public school capacity for annual growth policy purposes. In addition, the Board of Education, County Executive, and Planning Board shall review the current AGP methodology for determining adequacy of public schools and make recommendations on reaffirming continued use of that methodology or proposed changes. These recommendations shall be considered by the Council as part of the FY 94 AGP. Further, the AGP implications of proposed school capital improvements projects should be highlighted during next year's capital budget review and approval processes.
7. **AGP Process Changes** - The Planning Board public forum on its consultant report comparing processes for determining adequate public facilities should be broadened to include other possible structural changes related to growth management. The Planning Board has advised that its public forum will occur in the fall. Subsequent to the public forum, the Council will schedule a worksession with the Planning Board and the Executive to review alternatives and their recommendations.

Specific scheduling of items to be undertaken by the Planning Board under this Section may be addressed or changed at the quarterly report meetings with the County Council.

This is a correct copy of Council action.



Kathleen A. Freedman, CMC
Secretary of the Council

Table 1
HOUSING
FY 93 Transportation Staging Ceilings
(January 1, 1991 Base)

Policy Areas ¹	FY 93 Net Housing Ceilings ²	Pipeline 3/30/92	Remaining Capacity
Aspen Hill	(2,212)	2,933	(5,145)
Bethesda CBD ³	1,085	585	500
Bethesda/Chevy Chase	3,777	1,339	2,438
Cloverly	(1,740)	395	(2,135)
Damascus	(617)	351	(968)
Derwood/Needwood/Wash. Grove/Shady Grove	1,529	150	1,379
Fairland/White Oak	(430)	1,941	(2,371)
Gaithersburg City	4,430	2,213	2,217
Germantown East	4,389	4,342	47
Germantown West	2,101	3,009	(908)
Germantown Town Center	102	102	0
Kensington/Wheaton	2,504	646	1,858
Montgomery Village/Airpark	(1,621)	2,601	(4,222)
North Bethesda	4,165	1,341	2,824
North Potomac	(3,269)	1,645	(4,914)
Olney	1,840	2,553	(713)
Potomac ³	3,031	1,387	1,644
R & D Village	2,516	2,764	(248)
Rockville City	1,516	1,353	163
Silver Spring CBD ³	3,382	2,010	1,372
Silver Spring/Takoma Park	2,633	338	2,295
Wheaton CBD	1,540	31	1,509
Totals ⁴	40,540	34,029	18,246

¹ Group I Policy Areas (e.g., Clarksburg) are not assigned staging ceilings. In these areas, subdivision applications are subject to Local Area Transportation Review, as well as to relevant zoning and water and sewer constraints.

² The ceilings indicate the amount of additional development that can be supported with transportation capacity available from the first four years of the anticipated FY 93-98 CIP or FY 92-97 State CIP. Negative numbers indicate the amount by which the estimated level of development exceeds the ceiling. This table does not include the existing base level of housing, which is shown in the tables of Appendix 6 in the final draft FY 93 AGP.

³ Although ceilings are shown for all policy areas, development in Potomac is controlled by Zoning/Water/Sewer constraints. Development in the Bethesda CBD is controlled by the Cordon Capacities established in the CBD Sector Plan. Development in the Silver Spring CBD is controlled by the limits established in the Silver Spring Sector Plan.

⁴ Numbers in columns may not sum to policy area totals as negative numbers are treated as zero for summation purposes.

Table 2
EMPLOYMENT
FY 93 Transportation Staging Ceilings
(January 1, 1991 Base)

Policy Areas ¹	FY 93 Net Jobs Ceilings ²	Pipeline 3/30/92	Remaining Capacity
Aspen Hill	348	14	334
Bethesda CBD ³	3,457	3,152	305
Bethesda/Chevy Chase	10,949	2,954	7,995
Cloverly	(85)	100	(185)
Damascus	708	623	85
Derwood/Needwood/Wash. Grove/Shady Grove	219	2,614	(2,395)
Fairland/White Oak	(2,821)	6,918	(9,739)
Gaithersburg City	15,705	19,595	(3,890)
Germantown East	14,888	15,012	(124)
Germantown West	8,168	9,908	(1,740)
Germantown Town Center	3,164	3,164	0
Kensington/Wheaton	4,250	287	3,963
Montgomery Village/Airpark	582	5,848	(5,266)
North Bethesda	3,961	11,586	(7,625)
North Potomac	150	254	(104)
Olney	620	940	(320)
Potomac ³	2,805	655	2,150
R & D Village	3,747	6,604	(2,857)
Rockville City	10,260	17,452	(7,192)
Silver Spring CBD ³	10,826	9,885	941
Silver Spring/Takoma Park	1,545	903	642
Wheaton CBD	2,835	87	2,748
Totals ⁴	99,187	118,555	19,163

¹ Group I Policy Areas (e.g., Clarksburg) are not assigned staging ceilings. In these areas, subdivision applications are subject to Local Area Transportation Review, as well as to relevant zoning and water and sewer constraints.

² The ceilings indicate the amount of additional development that can be supported with transportation capacity available from the first four years of the anticipated FY 93-98 CIP or FY 92-97 State CIP. Negative numbers indicate the amount by which the estimated level of development exceeds the ceiling. This table does not include the existing base level of housing, which is shown in the tables of Appendix 6 in the final draft FY 93 AGP.

³ Although ceilings are shown for all policy areas, development in Potomac is controlled by Zoning/Water/Sewer constraints. Development in the Bethesda CBD is controlled by the Cordon Capacities established in the CBD Sector Plan. Development in the Silver Spring CBD is controlled by the limits established in the Silver Spring Sector Plan.

⁴ Numbers in columns may not sum to policy area totals as negative numbers are treated as zero for summation purposes.

TABLE 3: ELEMENTARY SCHOOLS BY HIGH SCHOOL CLUSTER AND AREA
Comparison of 1996 MCPS Projected Elementary School Enrollment to 1996 Program Capacity
Provided by the County Council Adopted FY 93-98 CIP

School Policy Areas (High School Cluster)	A September 1996 Enrollment Projected by MCPS (as of 6/92) ¹	B 100% of 1996 Program Capacity with County Council Adopted FY 93-98 CIP ²	C Capacity Remaining at 100% B-A	D 110% of 1996 Program Capacity with County Council Adopted FY 93-98 CIP B*110%	E Capacity Remaining at 110% D-A
Area 1					
Bethesda-Chevy Chase	3,135	3,337	202	3,671	536
Blair	4,548	4,879	331	5,367	819
Churchill	2,226	2,446	220	2,691	465
Einstein	2,921	2,983	62	3,281	360
Walter Johnson	2,664	2,810	146	3,091	427
Whitman	1,945	2,135	190	2,349	404
Wootton	3,245	3,125	(120)	3,438	193
Subtotal	20,684	21,715	1,031	23,887	3,203
Area 2					
Kennedy	2,266	2,664	398	2,930	664
Magruder	3,260	3,205	(55)	3,526	266
Paint Branch	3,668	3,828	160	4,211	543
Rockville	2,402	2,711	309	2,982	580
Sherwood	3,004	2,837	(167)	3,121	117
Springbrook	4,044	4,247	203	4,672	628
Wheaton	2,548	2,851	303	3,136	588
Subtotal	21,192	22,343	1,151	24,577	3,385
Area 3					
Damascus	3,112	3,341	229	3,675	563
Gaithersburg	5,007	4,634	(373)	5,097	90
R. Montgomery	2,351	2,595	244	2,855	504
Poolesville	913	981	68	1,079	166
Quince Orchard	3,789	4,025	236	4,428	639
Seneca Valley	5,054	5,192	138	5,711	657
Watkins Mill	3,254	3,347	93	3,682	428
Subtotal	23,480	24,115	635	26,527	3,047
Total	65,356	68,173	2,817	74,990	9,634

¹ Enrollment Projections by Montgomery County Public Schools

² Cluster Capacity as stated in the County Council's Approved FY 93-98 CIP. Program capacity assumes the student per classroom ratio as funded by the Montgomery County Council (i.e., 25 students per classroom for grades 1 to 6).

Source: Montgomery County Public Schools, Educational Facilities Planning and Development; the Montgomery County Planning Department, Research Division; and the Superintendent's Requested FY 93-98 CIP.

TABLE 4: MID-LEVEL SCHOOLS BY HIGH SCHOOL CLUSTER AND AREA
Comparison of 1996 MCPS Projected Junior, Intermediate, & Middle School Enrollment to 1996 Program Capacity
Provided by the County Council Adopted FY 93-98 CIP

School Policy Areas (High School Cluster)	A September 1996 Enrollment Projected by MCPS (as of 6/92) ¹	B 100% of 1996 Program Capacity with County Council Adopted FY 93-98 CIP ²	C Capacity Remaining at 100% B-A	D 110% Of 1996 Program Capacity with County Council Adopted FY 93-98 CIP B*110%	E Capacity Remaining at 110% D-A
Area 1					
Bethesda-Chevy Chase	930	909	(21)	1,000	70
Blair	2,386	1,575	(811)	1,733	(653)
Churchill	1,239	1,623	384	1,785	546
Einstein	1,289	1,174	(115)	1,291	2
Walter Johnson	1,296	1,130	(167)	1,242	(54)
Whitman	1,112	1,080	(32)	1,188	76
Wootton	818	833	15	917	99
Subtotal	9,070	8,324	(746)	9,156	86
Area 2					
Kennedy	1,230	1,640	410	1,804	574
Magruder	898	788	(110)	867	(31)
Paint Branch	1,668	1,720	52	1,892	224
Rockville	926	953	27	1,048	122
Sherwood	1,856	1,832	(24)	2,016	160
Springbrook	1,727	1,910	183	2,101	374
Wheaton	1,086	1,055	(31)	1,160	74
Subtotal	9,391	9,899	508	10,888	1,497
Area 3					
Damascus	1,304	1,226	(78)	1,349	45
Gaithersburg	2,016	2,084	68	2,293	277
R. Montgomery	1,071	883	(188)	971	(100)
Poolesville ³	0	0	0	0	0
Quince Orchard	1,571	1,516	(55)	1,668	97
Seneca Valley	1,930	2,430	500	2,673	743
Watkins Mill	1,508	1,670	162	1,837	329
Subtotal	9,400	9,809	409	10,790	1,390
Total	27,861	28,032	171	30,835	2,974

¹ Enrollment Projections by Montgomery County Public Schools

² Cluster Capacity as stated in the County Council's Approved FY 93 CIP. 100 percent of program capacity is defined as 90 percent of the state rated capacity (i.e. 22.5 students per classroom).

³ Poolesville's JIM and high school are one facility.

Source: Montgomery County Public Schools, Educational Facilities Planning and Development; the Montgomery County Planning Department, Research Division; and the Superintendent's Requested FY 93-98 CIP.

TABLE 5: SENIOR SCHOOLS BY HIGH SCHOOL CLUSTER AND AREA
Comparison of 1996 MCPS Projected High School Enrollment to 1996 Program Capacity
Provided by the County Council Adopted FY 93-98 CIP

School Policy Areas (High School Cluster)	A	B	C	D	E
	September 1996 Enrollment Projected by MCPS (as of 6/92) ¹	100% of 1996 Program Capacity with County Council Adopted FY 93-98 CIP ²	Capacity Remaining at 100% B-A	110% Of 1996 Program Capacity with County Council Adopted FY 93-98 CIP B*110%	Capacity Remaining at 110% D-A
Area 1					
Bethesda-Chevy Chase	1,543	1,508	(35)	1,659	116
Blair	2,595	1,998	(597)	2,198	(397)
Churchill	1,616	1,593	(23)	1,752	136
Einstein	1,366	1,412	46	1,553	187
Walter Johnson	1,548	1,480	(68)	1,628	80
Whitman	1,521	1,458	(63)	1,604	83
Wootton	1,570	1,547	(23)	1,702	132
Subtotal	11,759	10,996	(763)	12,096	337
Area 2					
Kennedy	1,502	1,288	(214)	1,417	(85)
Magruder	1,678	1,730	52	1,903	225
Paint Branch	1,846	1,631	(215)	1,794	(52)
Rockville	1,199	1,291	92	1,420	221
Sherwood	1,723	1,596	(127)	1,756	33
Springbrook	2,319	2,070	(249)	2,277	(42)
Wheaton	1,344	1,205	(139)	1,326	(18)
Subtotal	11,611	10,811	(800)	11,892	281
Area 3					
Damascus	1,600	1,494	(106)	1,643	43
Gaithersburg	2,088	1,845	(243)	2,030	(58)
R. Montgomery	1,667	1,504	(163)	1,654	(13)
Poolesville ³	1,071	833	(238)	917	(154) ⁴
Quince Orchard	2,152	1,890	(262)	2,079	(73)
Seneca Valley	1,810	1,605	(205)	1,766	(44)
Watkins Mill	1,812	1,732	(80)	1,905	93
Subtotal	12,200	10,903	(1,297)	11,994	(206)
Total	35,570	32,710	(2,860)	35,981	411

¹ Enrollment Projections by Montgomery County Public Schools

² Cluster Capacity as stated in the County Council's Approved FY 93-98 CIP. 100 percent of program capacity is defined as 90 percent of the state rated capacity (i.e., 22.5 students per classroom).

³ Poolesville's JIM and high school are one facility.

⁴ Since Poolesville's JIM and high school are one facility, the combined JIM and high school capacities for adjoining clusters were used to offset this deficit.

Source: Montgomery County Public Schools, Educational Facilities County Planning Department, Research Division; and the Superintendent's Requested FY 93-98 CIP.

CHART 1: QUANTIFYING THE CORRESPONDENCE BETWEEN TRANSIT AVAILABILITY AND AVERAGE LEVEL OF SERVICE STANDARDS

Average Roadway Level of Service Standards	Group Classifi- cations	Public Transport Alternatives to Automobile Travel	Transit Services Available or Programmed				
			Auto Dependent System	and/or	Bus Base Systems	and/or	Fixed Guideway Systems
			Park/Ride Access	Community and Local Bus Service	Regional Park/Ride Express Bus and High Occupancy Vehicle Priority Systems	Commuter Rail or Light Rail	Metrorail
			Representative Quantification Measures**				
			1. Number of Park/ Ride Spaces Serving the Policy Area	2. Average Bus Fre- quencies in AM Peak Hour on Combined Routes (Buses per hour)	3. Number of Parking Spaces in Fringe Parking Lots	4. Average Frequency of Commuter Rail AM Peak Hour (Trains per hour)	5. Average Frequency of Metrorail in AM Peak Hour (Trains per hour)
*	I	Marginal	Marginal access to stations or bus routes outside of the area	Not available	Not available	Marginal amount of the area is within walk access	Not available
C	II	Limited	Limited number of park/ride spaces 100 to 500	Limited coverage and frequency 2 to 3.5	Limited park/ride spaces or lots with local bus service 100 to 500	Limited park/ride access and walk access 3 to 6	Park/ride and kiss/ride access limited to nearby stations outside of the area 0
C/D	III	Moderate	Moderate number of park/ride spaces, limited kiss/ride service 500 to 1,000	Moderate coverage, service limited to policy frequencies 3.5 to 5	Moderate express bus service in conjunction with a system of park/ride lots 500 to 2,250	Moderate parking or walk access with system transfers 6 or more	Moderate station coverage and train frequencies in the area with associated feeder access 0 to 15
D	IV	Frequent	Very good number of park/ride spaces and moderate kiss/ride service 1,000 to 1,500	Moderate coverage, combined policy and frequent demand- based service 5 to 8	Priority treatment for frequent express buses, local circulation feeder services in conjunction with a system of park/ride lots More than 2,250	Same as Group III above	More dense spacing of stations and bus routes, frequent train service 15 to 35
D/E	V	Full	Substantial park/ride with full reliance on kiss/ride access 1,500 to 2,250	Full area coverage and a large number of routes with frequencies based on demand 8 to 10	Same as Group IV above	Same as Group III above	Full frequency and full reliance on kiss/ride, easier walk and bicycle access More than 35
*	VI	Expanded	Expanded park/ride with reliance on kiss/ride access	Expanded bus fre- quencies, 100 buses on all routes in PM Peak Hour	Same as Group IV above	Same as Group III above	Full frequency, station in designated CBD with controlled parking and Transportation Mgmt. District More than 35

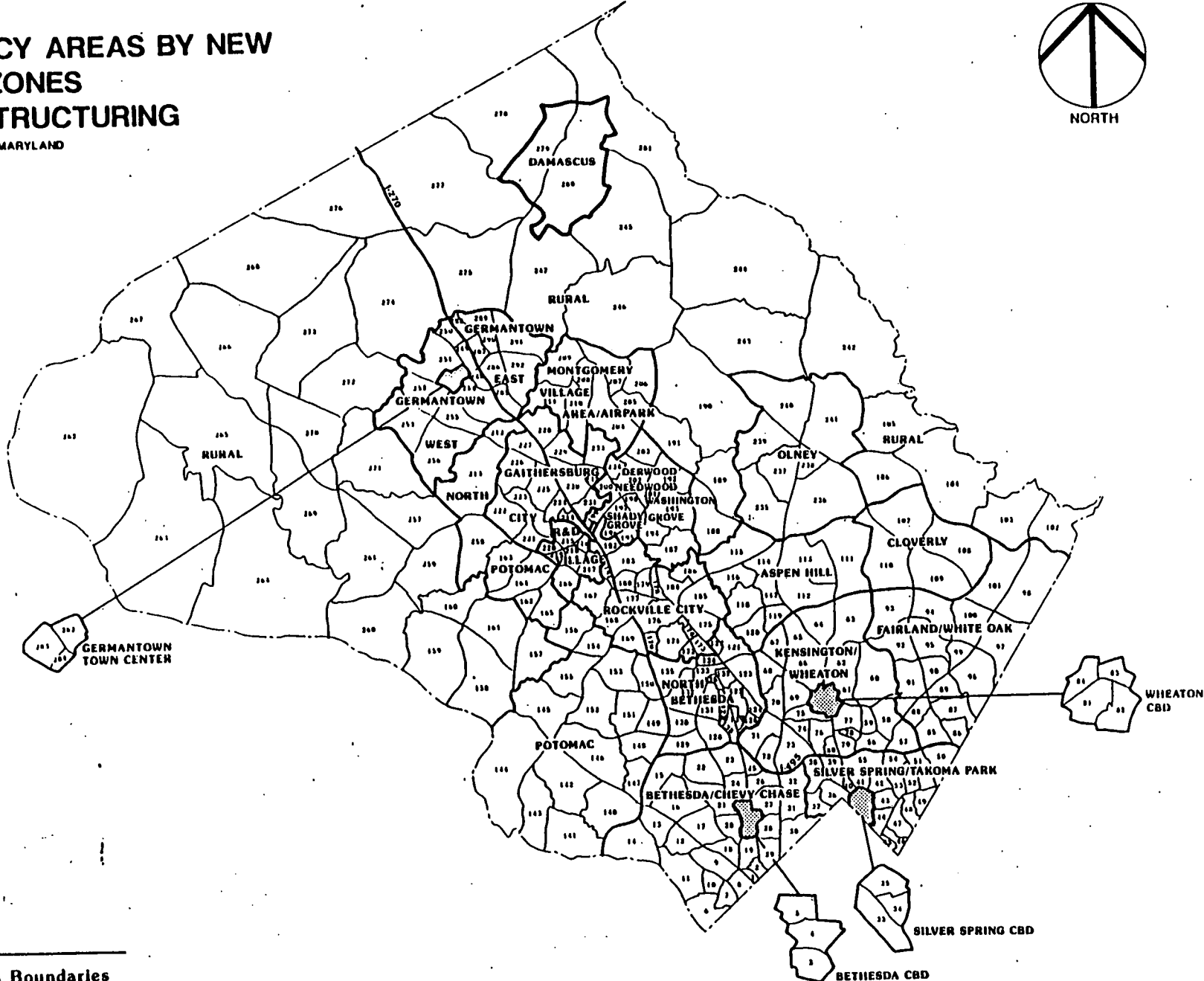
* See text of the adopted AGP for methods and standards of measuring traffic.

** Other measures also are used in quantifying level of service; see supporting documentation.

Source: Montgomery County Planning Department, June 1991.

NEW POLICY AREAS BY NEW TRAFFIC ZONES WITH RESTRUCTURING

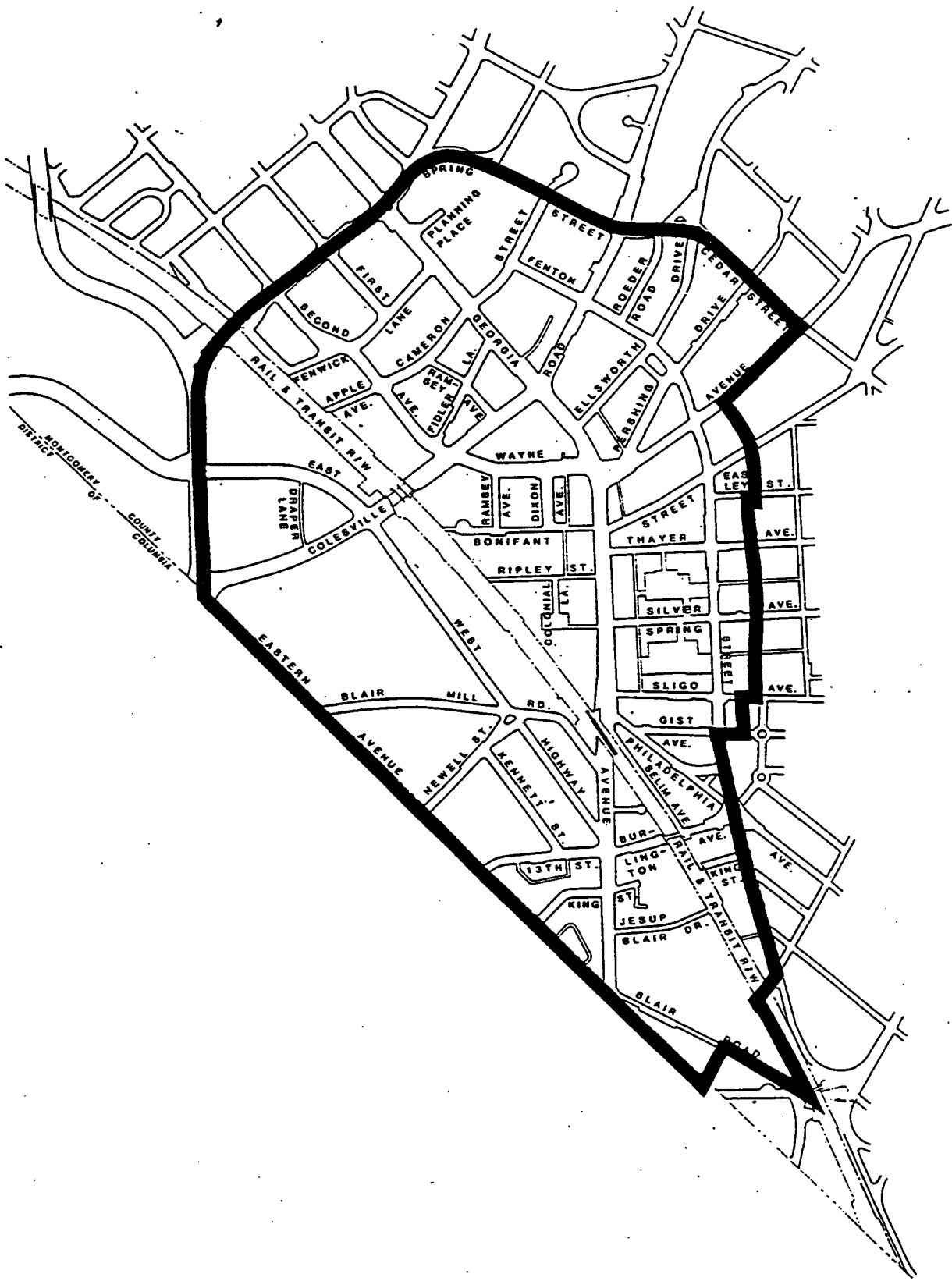
MONTGOMERY COUNTY, MARYLAND



- Policy Area Boundaries
- Traffic Zone Boundaries
- Traffic Zone Numbers

SOURCE: MONTGOMERY COUNTY PLANNING DEPARTMENT JUNE 1991

MAP 2 SILVER SPRING CBD POLICY AREA BOUNDARY



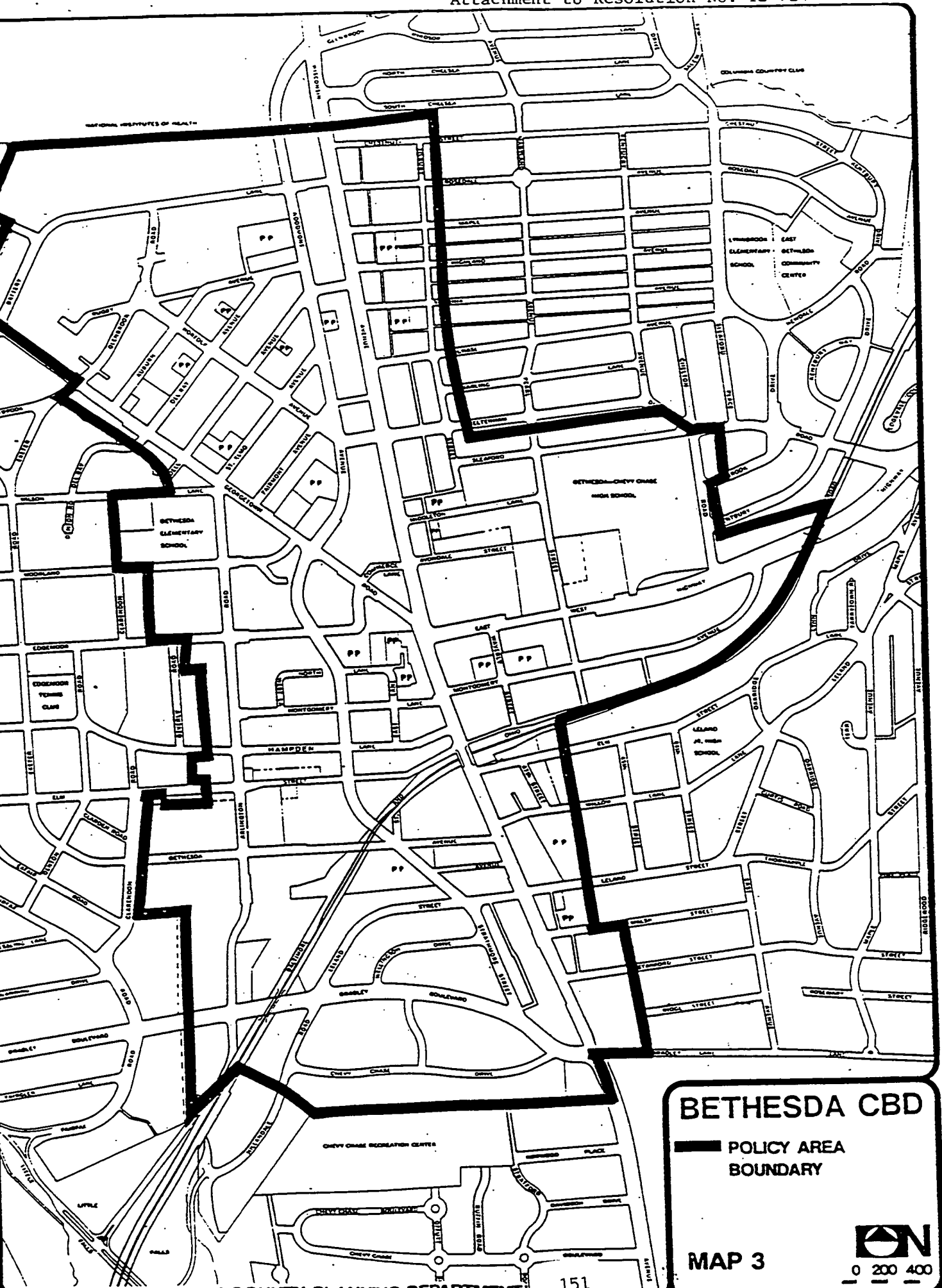
SOURCE: MONTGOMERY COUNTY PLANNING DEPARTMENT



400 0 400
200 800 FEET

CBD BOUNDARY

FIGURE

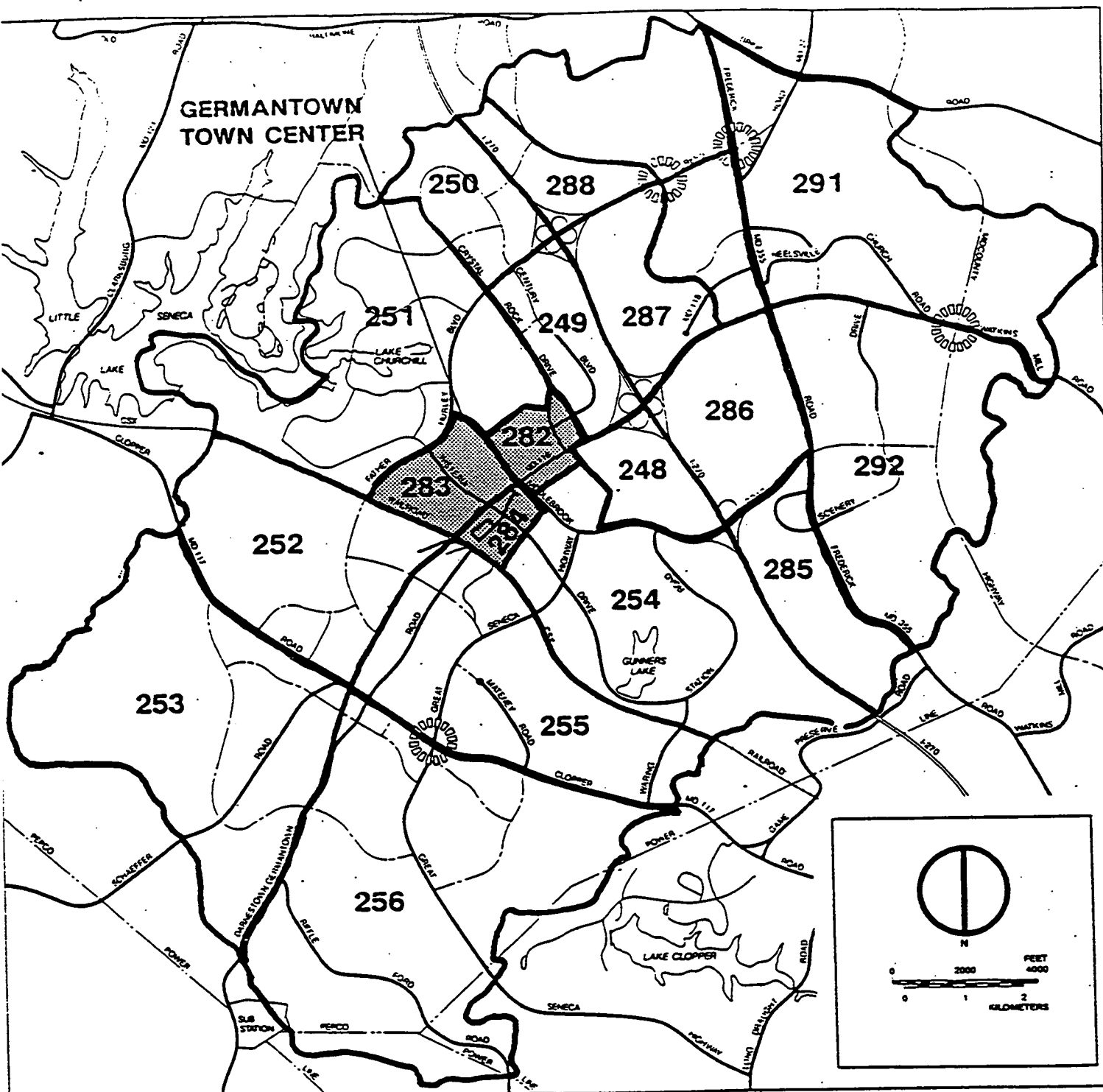


BETHESDA CBD

**— POLICY AREA
BOUNDARY**

MAP 3





NEWER TRAFFIC ZONES IN GERMANTOWN



Comprehensive Amendment
to the Master Plan for Germantown
Montgomery County, Maryland

The Maryland-National Capital Park and Planning Commission

MAP 4

MAP 3 STANDARDS OF TRANSPORTATION SERVICE

MONTGOMERY COUNTY, MARYLAND



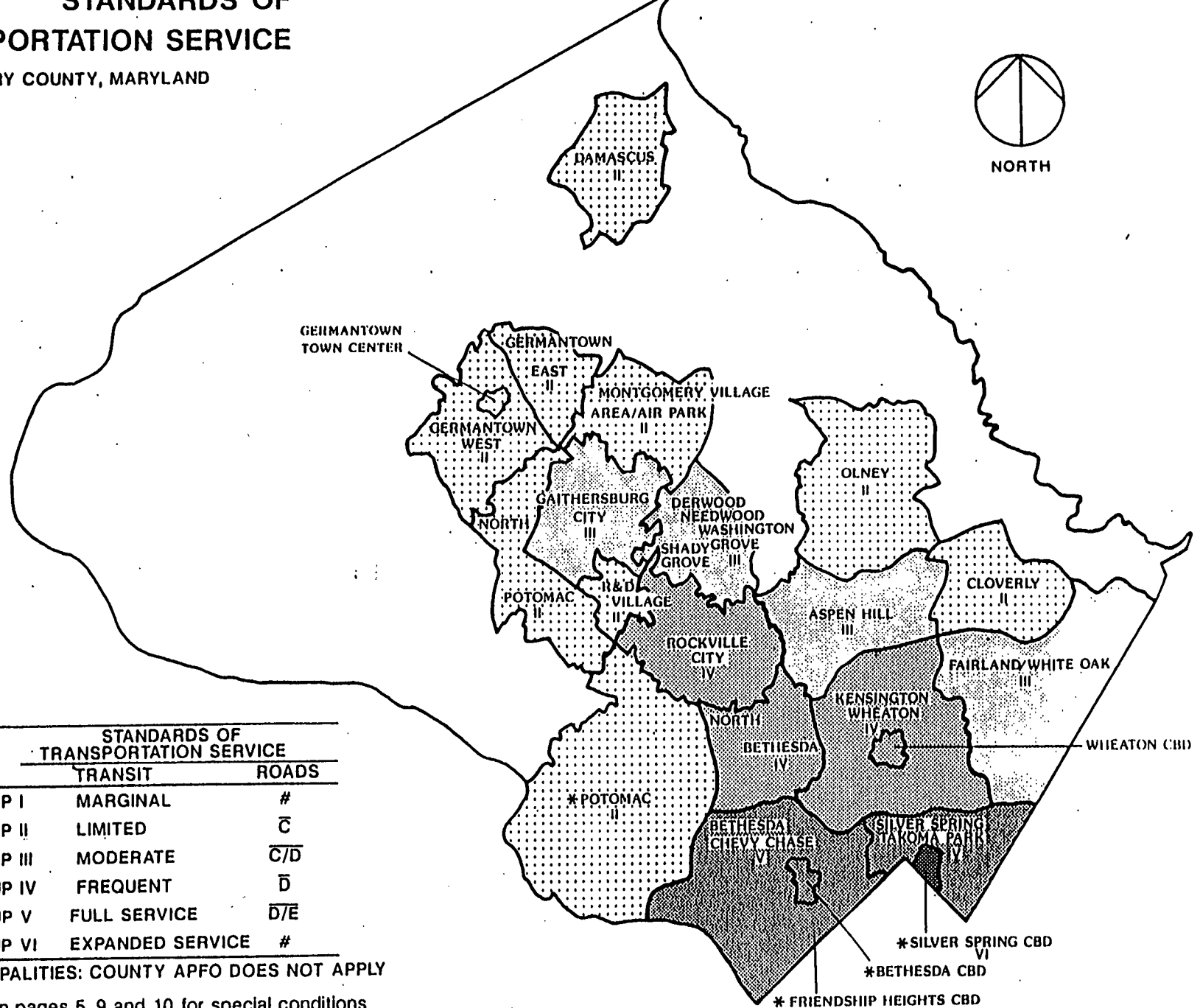
KEY	STANDARDS OF TRANSPORTATION SERVICE	
	TRANSIT	ROADS
GROUP I	MARGINAL	#
GROUP II	LIMITED	C
GROUP III	MODERATE	C/D
GROUP IV	FREQUENT	D
GROUP V	FULL SERVICE	D/E
GROUP VI	EXPANDED SERVICE	#

Note: MUNICIPALITIES: COUNTY APFO DOES NOT APPLY

See text on pages 5, 9 and 10 for special conditions

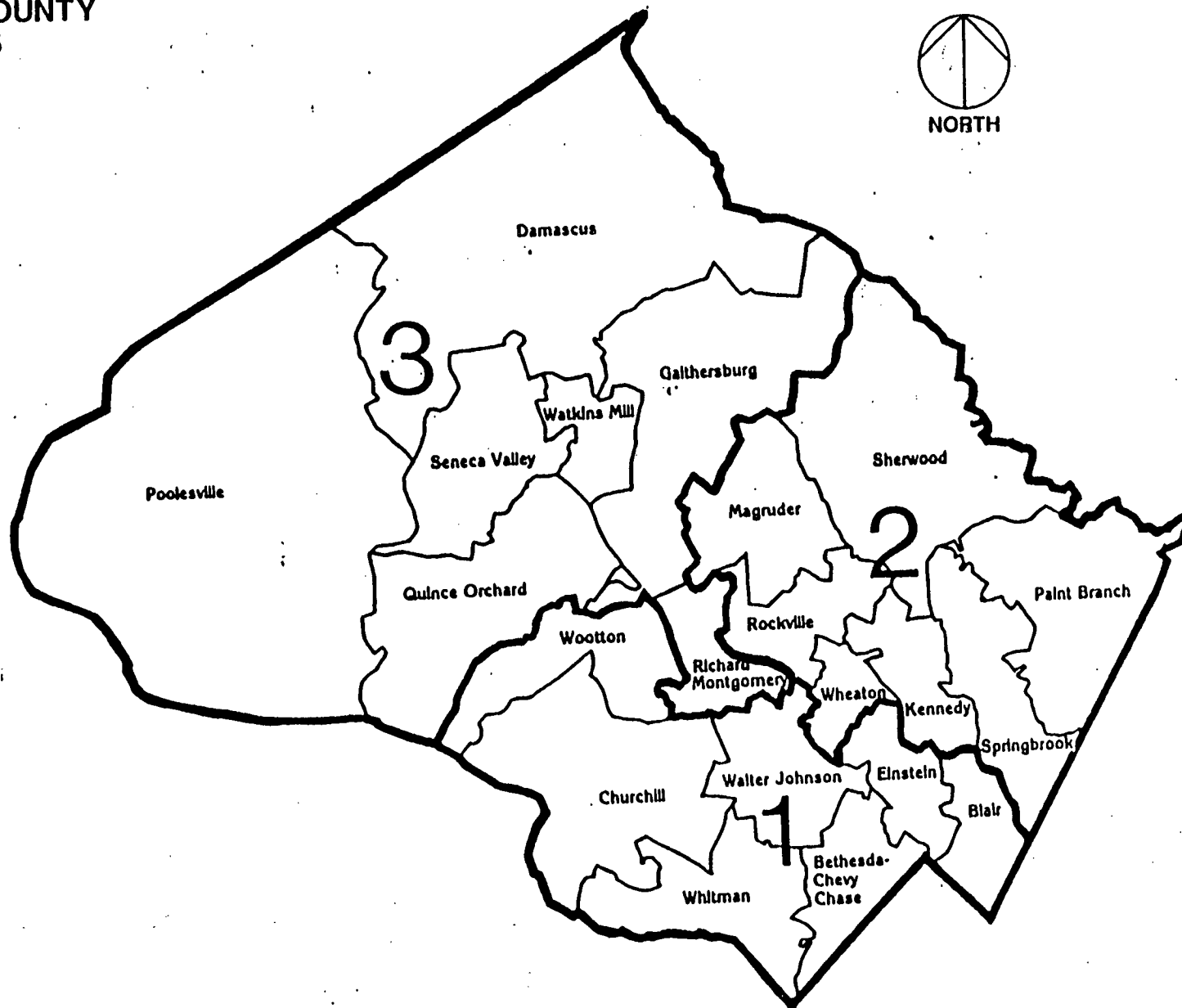
* See page 5 for a discussion of different master plan guidelines

Source: Montgomery County Planning Department



MAP 6

MONTGOMERY COUNTY PUBLIC SCHOOLS HIGH SCHOOL CLUSTERS



**GUIDELINES FOR FUNDING OF LOCAL AREA REVIEW
TRANSPORTATION IMPROVEMENTS (LARTI)**

1. **Purpose:** The primary purpose of the Local Area Review Transportation Improvements (LARTI) pilot program is to "jump-start" and promote housing development in Montgomery County which has received preliminary plan approval from the Montgomery County Planning Board but which cannot proceed due to a developer's inability to finance off-site improvements required by the Local Area Transportation Review Test under the Adequate Public Facilities Ordinance. The LARTI program will provide funds for selected eligible improvements and will require reimbursement from participants.

2. **Eligibility Criteria:** In order to be eligible for LARTI funds the applicant must meet the following criteria:

- (a) The proposed project must be for housing development, which may also include housing as part of a mixed-use development. Two-thirds of the total trips associated with the project must be for housing units priced at or below the median sales price for new residential construction. For each type of residential construction, the County Executive shall determine an appropriate median sales price.
- (b) If a mixed-use development is proposed to be constructed in phases, then only each phase which contains a minimum of 66 2/3 percent in residential uses (as measured by trips) is eligible for LARTI funding.
- (c) The project must be in a policy area that has a positive Net Housing Ceiling. The Net Housing Ceiling must be able to accommodate the project.

3. **Application Process:** Any applicant who has a residential project which meets the eligibility criteria must submit an application to the Montgomery County Department of Transportation. The application must include the following information, as well as any other relevant information requested by MCDOT:

- (a) A feasibility statement pertaining to the residential portion of the proposed project which must include:
 - (1) a marketability study for the residential portion of the proposed project;
 - (2) a staging plan for construction of the housing;
 - (3) layout and design of the housing, including roads;

- (4) a financing plan for construction of the housing with commitment letters for the financing or some other evidence of financial backing; and
 - (5) estimated construction costs for the residential portion of the proposed project.
- (b) The names and addresses of all owners of record of the property.
 - (c) A description of the property by tax account number, lot and block number, acres/feet, and subdivision name.
 - (d) A description and engineering design, including cost estimates, of the LARTI which is proposed to be advance-funded by the County.

4. Review and Approval: Applications shall be pooled and reviewed to determine approval for funding. The Department of Transportation may establish appropriate time-frames for submission and review of applications. The Department may establish additional procedures not inconsistent with these guidelines. All complete applications otherwise eligible under Section 2 shall be evaluated to determine which provides the most cost effective use of County funds. They should be evaluated considering, among other relevant factors: 1) amount of low or moderately priced housing; 2) the potential amount of housing delivered per dollar advanced; 3) timing of reimbursement by the applicant; 4) impact of the project in addressing traffic safety concerns; and 5) the extent to which the proposed road project or projects mitigates existing traffic congestion.

MCDOT, after consultation with the Montgomery County Department of Housing and Community Development, may approve or disapprove, in whole or in part, an application for funding of LARTI of the residential portion of the proposed project. The amount of the LARTI which may be funded by MCDOT must not exceed the amount of funding approved by the Montgomery County Council in the CIP for PDF933129. If there is no funding remaining to be allocated by MCDOT for eligible projects, then MCDOT may approve list of projects which will be considered for any future funds allocated and approved by the County Council. In determining whether to approve or disapprove a proposed project, MCDOT must consider the information provided by the applicant in the Feasibility Statement, the factors specified in these guidelines, and the likelihood that the County will be reimbursed for the funding advanced for the LARTI. The Planning Board or its staff shall be given the opportunity to comment on applications within the review and approval time-frames applicable to the funding decision.

5. Funding Agreement: Following approval of funding for a proposed project, the applicant must enter into an agreement with the County which will specify the LARTI to be advance-funded by the County, the amount of such funding, the method and timing of the reimbursement to the County of the advance-funds, protection for the County as creditor, and such other provisions as may be deemed necessary by MCDOT or the County Attorney's Office. If the applicant and the County do not enter into a funding

agreement within 60 days of approval by the County of the application, then the approval is deemed to be withdrawn and the funds may be reallocated by MCDOT to another project. The funding agreement must provide that the funds for LARTI must be repaid to the County within no more than two years of the signing of the funding agreement or at the time of the sale of at least 1/3 of the lots or dwelling units which were the subject of the approved residential portion of the project, whichever comes first.

BB/BB 456/LAW/1-3

Appendix 1:

**Definitions
And Key
Variables**

DEFINITIONS AND KEY VARIABLES

I. GENERAL DEFINITIONS

ADEQUATE PUBLIC FACILITY ORDINANCE (APFO): Chapter 50, Section 35(k) of the Subdivision Ordinance requires the Planning Board to make a finding that existing or programmed public facilities are adequate before they can approve a preliminary plan of subdivision.

APPROVED ROAD PROGRAM (ARP): The County Executive publishes each January 1st and July 1st an Approved Road Program which lists all roads programmed in the current adopted CIP and the Maryland CTP for which: (A) in the case of the CIP, 100 percent of the estimated expenditures for construction costs have been appropriated; and (B) the County Executive has determined that construction will begin within two years of the effective date of the Approved Road Program. Roads required under Section 302 of the charter to be authorized by law are not considered programmed until they are finally approved in accordance with Section 20-1 of the Code. The ARP constitutes the list of roads which can be used when conducting a Local Area Transportation Review.

CAPITAL IMPROVEMENT PROGRAM (CIP): A document recommended each year by the Montgomery County Executive and adopted by the County Council which contains a six-year program for capital expenditures to expand and renovate Montgomery County's public facilities.

CONSOLIDATED TRANSPORTATION PROGRAM (CTP): The transportation capital improvements program annually adopted and administered by the State of Maryland. For the purposes of conducting the Annual Growth Policy analysis, the CTP will be considered as being adopted on the last day each year of the session of the Legislature, usually during the second week in April. In the event there is the possibility of a veto of the Legislature's actions by the Governor, then the appropriate date of adoption should be the last day that the Governor has to exercise his veto. In the event that the Legislature adds or deletes projects during the legislative session from the annual CTP document published by the MdDOT, usually in January, then official correspondence from the MdDOT acknowledging the intended changes to the CTP constitutes the official amendment. However, in order to use such changes in the Policy Area Review for the Staging Ceilings the correspondence needs to indicate that an added project would have 100 percent of its construction expenditures scheduled by the fourth fiscal year of that CTP. If appropriate, that correspondence can also be the basis of amending the Approved Roads Program.

LOOPHOLE PROPERTIES: Non-residential lots recorded prior to 1982 or in conformance with a preliminary plan approved prior to 1982 and recorded under the provisions of Bill 25-89 are called "Loophole Properties". Less stringent transportation tests are required of Loophole Properties. Non-residential Loophole Properties must pass Local Area Transportation Review at building permit but are exempted from Policy Area Transportation Review.

PRELIMINARY PLAN: The stage in the development review process at which Local Area Transportation Review and Policy Area Transportation Review are applied to subdivisions.

PROGRAMMED FACILITY: A capital facility project which is contained within the adopted County Capital Improvements Program, the State Consolidated Transportation Program, or program of Rockville or Gaithersburg, such that 100 percent of the expenditures for construction or operation are estimated to occur within the first four years of the applicable program. Where such transportation projects either cross several policy areas or will be built over a period of time in identifiable segments, the appropriate sections will be identified by the Planning Board to: (1) locate the segments in the appropriate policy areas, and (2) specify whether the segments meet the basic criteria for a programmed transportation improvement.

RECORD PLAT: A preliminary plan of subdivision which has been approved for recordation by the Montgomery County Planning Board or is already a recorded plat in the official Montgomery County land records.

STAGING POLICY AREA: A geographic subarea of the County, delineated by the Planning Board, as adopted by the Council in the Annual Growth Policy for the purpose of staging analysis and the establishment of transportation staging ceiling capacities as appropriate. (See Map 1.)

STAGING CEILING: A total amount of development expressed in terms of housing units and jobs that has been determined by the Montgomery County Council to be balanced appropriately, on the basis of an area wide average, with the existing and programmed transportation facilities for the area.

STAGING CEILING FLEXIBILITY: An option for applications which exceed policy area transportation staging ceilings to mitigate the traffic impact of a project. Developer participation may be "Full-Cost" or "Partial-Cost" depending upon the type of development:

Full-Cost Developer Participation permits the Planning Board to approve preliminary plan in moratorium areas when the applicant agrees to pay for the construction of public facilities. The public facilities project must add as much capacity to the transportation system as the proposed development will add. If the developer, for a period of 10 years, provides a traffic mitigation program, the program must reduce the number of peak hour, peak direction automobile trips by as many trips as would be generated by the proposed development.

Partial-Cost Developer Participation allows the Planning Board to approve a preliminary plan in moratorium areas when the applicant agrees to partially fund transportation facilities. Preliminary Plan approval is conditioned on a staging schedule linking building permits to transportation construction. This provision is available under the following circumstances:

- 1) Projects for certain employment facilities;
- 2) Planned projects in certain development zones, namely
 - a) town sector,
 - b) planned retirement community,
 - c) MXPD, and
 - d) transit station; and

- 3) Projects located in certain policy areas, namely
 - a) the Research and Development Village and
 - b) the Germantown Town Center.

II. OVERVIEW OF ANALYSIS PROCESS

Determining the impact of future development requires a number of assumptions to be made. The assumptions made about certain key variables influence the results of the various statistical and computerized modeling processes. All of the numbers used have distributions of values which are experienced in the real world. The analyses described in the following sections reflect the probability distribution of values or the central tendency of the distribution of those values for the variables used.

1. DEVELOPMENT MONITORING AND REVIEW

A. Development Pipeline

This is the amount of future residential and non-residential development which will be subtracted from the adopted staging ceilings. It shall consist of:

- 1) All building completions since January 1, 1991, and
- 2) The unbuilt portion of the following:
 - a) Preliminary plans approved by the Planning Board,
 - b) WSSC sewer connections for residential projects,
 - c) Public buildings at the issuance of building permit,
 - d) Preliminary plans approved by Gaithersburg,
 - e) Preliminary plans approved by Rockville,
 - f) Record plats approved by the Town of Poolesville, and
 - g) Building permits for "Loophole" properties.

B. Housing Units

Housing units may be single-family detached, single-family attached, garden apartments, or high rises. Each housing unit is counted as one unit for staging ceiling purposes.

C. Jobs in Building

The total estimated number of workers which can be accommodated in non-residential structures. It includes existing workers in addition to workers who could be accommodated in vacant or yet to be built structures. It does not include construction workers or self employed people working out of residential areas. It is calculated by multiplying a building's gross square footage by a standard ratio of square feet per job.

Job estimates for office buildings were derived from a 1989 study conducted by the Research Division of the Montgomery County Planning Department. Job ratios for the next five categories were derived from a 1984 survey conducted by the Research Division. The job estimates for research and development, church, mini-warehouse, and auto repair are staff decisions. Montgomery County Public

Schools provided the job estimates for schools. When the Montgomery County Planning Board limits the number of jobs for a project as a condition of its approval, that job limit is used as the number of jobs that the project adds to the pipeline.

Square Footage Per Employee Multipliers

Office: 225 square feet per job in the down-county policy areas (*Bethesda CBD, Bethesda/Chevy Chase, Kensington/Wheaton, Wheaton CBD, North Bethesda, Silver Spring CBD, and Silver Spring/Takoma Park*);
250 square feet per job in all other areas of the County.

Medical Offices:	400 square feet per job
Mixed Use Planned Development Zone:	350 square feet per job
Research & Development:	350 square feet per job
Retail:	400 square feet per job
Industrial/Warehouse:	450 square feet per job
Other: (e.g., hospital, hotel, daycare):	500 square feet per job
Church:	5 jobs
Mini-Warehouse:	1 job
Elementary School:	50 jobs
Middle School:	70 jobs
High School:	110 jobs
Auto Repair with No Sq.Ft. Available:	1 job per bay

2. ADEQUACY OF PUBLIC SCHOOLS

A. School Capacity

For Annual Growth Policy purposes, school capacity is measured as 110 percent of Council funded program capacity which includes space allocations for the regular program as well as special programs (i.e., special education and head start). This capacity measure does not count relocatable classrooms in computing a school's permanent capacity. Based on the approved FY 90- 95 Capital Improvements Program, the Council funded regular program capacity is a class size is as follows:

Grades	Effective Classroom Capacity
half day kindergarten	44
full day kindergarten	22
grades 1-6	25
secondary grades	22.5

B. School Enrollment Forecasts

MCPS projections are prepared in the fall of every year and are made for each of the upcoming six years and for two later years beyond the sixth year (in this year's forecast, these years are 1996 and 2001). The actual September enrollment at each school is used as the base on which the projections are developed and are used in the Planning Board draft AGP school analysis tables.

MCPS uses the cohort survivorship model to forecast future enrollment. This method is used widely throughout the country and stands out as the most practical and consistently accurate forecasting approach. The cohort survivorship model, as applied by MCPS planners, involves the calculation of the number of students that can be expected in a particular grade at a future date, given the number of students now enrolled in the prior grade. Judgments are made about past trends and about migration, program changes, transfers in and out of the school service area, and other miscellaneous factors. Through the tracking of subdivision construction, student yields from subdivisions are applied to expected enrollment. Beyond the time of known subdivision and building activity, MCPS planners rely on forecasts prepared by the Montgomery County Planning Department and their demographic model of County population up to 20 years in the future.

One of the most difficult components of the enrollment forecast is predicting kindergarten enrollment. MCPS planners review records of resident births compiled by the Maryland Center for Health Statistics. Births in nearby jurisdictions to mothers who reside in Montgomery County are included in these records. Birth data is at both the County-wide level and the Census tract level. For the small geographic level of an elementary school service area, birth data is not available. Also adding to the difficulty in forecasting is the common occurrence of families moving after a child is born, but before the child enrolls in school.

C. De Minimis Development for Schools

De Minimis development is that which will have minor school impacts. The County's policy is to avoid over regulating low impact development. For public school analysis purposes, the Planning Board can approve a preliminary plan of 10 or fewer single-family units, 17 or fewer townhouses, or 40 or fewer apartment units even if there has been a legislative determination that a geographic area does not have adequate public school capacity.

3. ADEQUACY OF TRANSPORTATION SYSTEM

The transportation system can be examined from several different perspectives. In Montgomery County, we use both a top down and a bottom up approach to look at the performance of the transportation system. The top down approach is called "Policy Area Transportation Review", while the bottom up approach is named "Local Area Transportation Review".

A. Policy Area Transportation Review

Policy Area Transportation Review (PATR) is the process used to determine the development supportable by the capacity of the transportation infrastructure, subject to other County goals and objectives. A forthcoming document *The TRAVEL 2 Model: A Technical Report* will explain the methodology behind the Travel Demand Analysis used in the Planning Department.

The transportation system is a multifaceted structure composed of a number of different modes. Five primary modes are considered in the Planning Department's analyses of transportation -- the automobile, bus and rail transit, walking, and cycling. In the TRAVEL 2 model system, the basic characteristics

of each mode are identified in order to estimate their usage given a set of conditions. Travel demand characteristics are determined to a great deal by the availability and quality of transportation supply, while supply characteristics, though to a large extent fixed, are in part dependent upon demand.

1) *Street and Highway Capacity*

Network capacity is measured in vehicles per hour per lane. The higher the classification and the better the geometric design of the road or intersection, the higher the capacity. In the TRAVEL 2 model, the street and highway network is analyzed as consisting of two parts, road segments and intersections.

Road Segment Capacity - the capacity of the road segment in the modeling analysis is defined as the number of vehicles per hour per lane that could be accommodated on a road segment if there were no intersections considering the geometrics of the road and traffic characteristics. "Accommodated" is generally taken to be the number of vehicles per hour at which the travel time is twice what it is in uncongested conditions. This point is also called midpoint of Level of Service E. Volumes are not constrained to always be less than or equal to "capacity", however. Rather, when volumes begin to exceed "capacity," the travel time on that road segment begins to increase more sharply, with an exponential growth rate. Road segment travel time is estimated from uncongested travel time, traffic volume, and the capacity. Generalized road segment capacities are given below:

Road Type	Typical Traffic Stream Capacities
Freeway	1800 - 2100 vehicles/hour/lane
Major Highway	1400 - 1800 vehicles/hour/lane
Arterial/Business/Indust.	1100 - 1500 vehicles/hour/lane
Residential Primary	800 - 1200 vehicles/hour/lane

Intersection Capacity - In TRAVEL 2, intersection capacity is analyzed using the Critical Lane Volume technique and then by allocating traffic signal green time in proportion to volume per lane on the intersection legs. Stopped Delay at the intersection is estimated for each turning movement using approach volume, intersection critical lane volume, and estimates of signal phasing and timing.

2) *Transit Accessibility and Availability*

Supply characteristics of transit, including the Ride-On, Metrobus, MARC, and Metrorail services, are measured in the TRAVEL 2 model in order to determine the proportion of trips taking transit. Transit availability is also used to determine the Level of Service Group of policy areas. This "Group" rating determines the allowable congestion. The measures used to quantify transit availability and use are as follows:

Concepts	Specific Measures
Coverage	Percent of Houses within 1/4 mile of bus stops and 1/2 mile of rail stations
	Percent of Employment Capacity of Buildings within 1/4 mile of bus stops and 1/2 mile of rail stations

Frequency	<i>Average Bus Frequency</i> <i>Average Train Frequency</i>
Accessibility	<i>Ratio of Sidewalk miles to Street miles</i> <i>Ratio of Bikeway miles to Street miles</i> <i>Number of Secure Bicycle Parking Spaces</i> <i>Number of Park-and-Ride spaces</i>
Use	<i>Percent Non-auto Driver Work Orig.</i> <i>Percent Non-auto Driver Work Dest.</i> <i>Percent Walk/Bike to Metro Stations</i>

3) *Pedestrian and Bicyclist Environment*

The quality of the pedestrian and bicyclist environment is used in the TRAVEL 2 model to determine the peak period mode shares for the walk and bike modes for both work and non-work trips, as well as to help determine the proportion of people who walk to transit. Several measures are used, including the ratio of sidewalk miles to street miles, the density of housing and employment, and the distance between locations.

4) *Travel Demand Analysis*

Travel demand analysis is composed of five parts, which are described below. There are a number of variables other than those discussed below which are also used in the TRAVEL 2 model system.

Trip Generation - This is the process whereby the number of trips originating in or destined for any area (a traffic zone) is determined. At the home end of all trips originating at or destined for a residence, trip generation is a "cross-classification" procedure, where the number of trips are a function of the age of the tripmaker, the number of members of the tripmaker's household size, and the type of housing (single or multiple family). At the employment end of work trips, trip generation is estimated by a regression equation of the number of employees by employment type (Office, Retail, Industrial, Other). At the non-home end of other (non-work) trips, the number of trips generated is determined by a regression of the number of retail employees and size of the population. The TRAVEL 2 model simulates PM peak period person trips for the following trip purposes:

Trip Purposes in TRAVEL 2 - PM Peak Period Model

- Work to Home (unlinked)
- Work to Other to Home (linked)
- Other to Home
- Home to Other
- Other to Other
- Home to Work
- Small and Medium Trucks (vehicles)
- Large Trucks (vehicles)

Destination Choice - This stage, also called trip distribution, determines the proportion of trips in each origin zone which will go to each other zone for the trip purposes defined above. The probability of going to a zone depends on the attractiveness of that zone. Attractiveness is modeled using a "Gravity" model, wherein the number of trip attractions generated in that zone is compared with the number in all other zones, and the travel time to that zone is compared with the travel time to all other zones. The destinations are assigned to most closely match the observed distribution of travel times.

Departure Time Choice - This step, sometimes referred to as peak hour factoring or temporal trip distribution, estimates the proportion of trips traveling in the peak hour given the percent delay on the road network between a given origin- destination pair. The model used in TRAVEL 2 is "Binomial Logit". Departure time choice is estimated separately for work and non- work trips.

Mode Choice - This component estimates the proportion of trips between a given origin-destination pair which will take a specific mode. The form of mode choice model used in TRAVEL 2 is "Multinomial Logit". Eight modes have been defined in the TRAVEL 2 model, they are estimated separately for work and non-work trips. This revised mode choice model includes a mode not accounted for in the TRAVEL 1 model -- transit passengers getting from transit to home as automobile passengers in the evening (which is commonly called "kiss-and-ride").

Modes Modeled in TRAVEL 2 - PM Peak Period Model

- Auto 1 Occupant (SOV)
- Auto 2 Occupant (HOV-2)
- Auto 3+ Occupants (HOV-3)
- Transit (Walk Egress)
- Transit (Auto Driver Egress)
- Transit (Auto Passenger Egress)
- Walk
- Bicycle

Route Choice - The last part of demand estimation is called trip assignment, because trips are assigned to a set of roads and transit routes which are used between each origin- destination couplet. The assignment of vehicle trips to the road network is an iterative process, solved using a procedure called "Static User Equilibrium Assignment". The fundamental principle of user equilibrium states that travel time on all chosen routes between each origin and destination is equal, and less than the time along unused routes. Transit assignment is performed using the method of "Optimal Strategies". The principle underlying optimal strategies is that tripmakers will minimize their total weighted travel time. The components of transit travel time considered include access and egress time, boarding and waiting time, and in-vehicle time. Access and egress time are more onerous than in-vehicle time, and boarding and waiting time are even less desirable than access and egress time.

5) Level of Service

In the setting of policy area transportation staging ceilings, the acceptable "Level of Service" is a primary factor. The Annual Growth Policy strives to maintain a roughly equal composite transportation level of service, considering the quality of highway travel and the quality of transit and other modes. The Traffic Level of Service is a description of the quality of performance of roads or intersections given the demands being placed upon them. Level of Service is measured on a nationally accepted scale from "A" to "F" to describe the quality of traffic flow on roadways and serves as an indicator of relative degrees of congestion. Levels of Service can also be used to describe the quality of transit and other modes. This is discussed in greater detail under "Transit Accessibility and Availability."

There are a number of possible measures of traffic Level of Service, of which those that are currently used in setting policy area staging ceilings are discussed below. For Policy Area Transportation Review, the Average Congestion Index (ACI) is a key factor influencing the establishment of policy area ceilings. The Bethesda CBD uses a cordon congestion measure as described in the Sector Plan. The Silver Spring CBD uses a different intersection analysis procedure. Methodologies for measuring Level of Service and setting staging ceilings are being developed for Metro Station and Town Center policy areas.

a) Average Congestion Index

The ACI is computed as the vehicle miles of travel weighted average volume to capacity ratio on all road segments in a policy area. This measure works well in areas with more road segments, and not as well in small areas, such as CBDs and sector plan areas, where other techniques are used. Roads shared by policy areas along boundaries are split between the areas. The interstate road segments are assigned as follows:

Policy Area	Freeways
Bethesda/Chevy Chase	I-495 (split with N. Bethesda and Potomac) Clara Barton (formerly G. Washington) Parkway Cabin John Parkway
Fairland/White Oak	I-495 (split with Silver Spring)
Derwood/Needwood	I-370 (split with Gaithersburg) I-270 (split with R&D Village)
Gaithersburg City	I-270
Germantown East	I-270 (split with Germantown West)
Germantown West	I-270 (split with Germantown East)
Kensington/Wheaton	I-495 (split with Silver Spring)
North Bethesda	I-270 I-270 Spur (split with Potomac)
Potomac	I-495 (split with Bethesda/Chevy Chase) I-270 Spur (split with North Bethesda) I-495 (split with Bethesda/Chevy Chase) Clara Barton Parkway
R&D Village	I-270 (split with Derwood/Needwood)
Rockville	I-270
Silver Spr/Takoma Pk.	I-495 (split with Fairland/White Oak and Kensington/Wheaton)

b) **Exceptions**

Potomac - Development in Potomac is not controlled by Policy Area Transportation Review, but rather by zoning as set in the Potomac Subregion Plan, and water and sewer constraints. Development is still subject to Local Area Transportation Review in some circumstances as discussed in the section below on Local Area Transportation Review.

Bethesda CBD - Development in the Bethesda CBD is controlled by the cordon capacities established in the Bethesda CBD Sector Plan.

Silver Spring CBD - The staging ceiling for Silver Spring CBD is set using a cordon method established in the Silver Spring CBD Sector Plan. Three administrative guidelines set by the County Council in determining Level of Service are :

- All traffic limitations are derived from the heaviest traffic demand period, in Silver Spring's case, the p.m. peak hour outbound traffic;
- The average level of service for the surrounding Silver Spring/ Takoma Park Policy Area must not be worse than the adopted average standard of D/E; and
- The outbound traffic, including both local CBD traffic and through traffic must not exceed the Silver Spring practical cordon capacity of 18,000 vehicles per hour.

6) **De Minimis Development for Transportation**

De Minimis development is that which will have minor traffic impacts. The Annual Growth Policy defines De Minimis development for transportation analysis purposes as that which would produce no more than 10 peak hour trips in total. De Minimis development may receive approval of up to 5 peak hour trips within areas exceeding their staging ceiling.

B. **Local Area Transportation Review**

Local Area Transportation Review (LATR) is the process used to determine if a proposed development will produce excessive local congestion in excess of specified standards. The latest *Local Area Transportation Review Guidelines*, adopted October 4, 1990, is available as a separate publication from the Planning Department.

1) ***Travel Demand Analysis***

The Travel Demand Analysis for Local Area Transportation Review is similar in structure, but different in application to that performed for Policy Area Transportation Review. The Demand Analysis includes the stages of Trip Generation, Trip Distribution, and Route Choice, but due to the nature of the system under study, they are implemented differently.

Trip Generation - Trip generation rates represent the number of vehicle trips both to and from a development per unit of development activity. They are used in LATR in order to assess the impact of a particular development on the nearby transportation network. For LATR, the Planning Department uses peak hour trip rates based on studies of sites within Montgomery County for office, fast food restaurants, and most retail and residential uses. Where data for Montgomery County is not available, the *Institute of Transportation Engineers' Trip Generation Report* is used. In some areas of the County, trip generation rates outside these ranges are established in the sector plan or through other procedures to reflect factors specific to an area or site. Trip Generation is conducted for the AM or PM Peak Hours, and thus no Departure Time Choice step is required. Mode Choice is also implicit in trip generation rates, which are measured for vehicles. Adjustments to trip rates for sites depending upon expectation of transit use may be made.

Trip Distribution - At the site level, trip distribution amounts to determining the directional split of trips approaching and leaving a specific site, and determining the number of trips entering and exiting a site, as well as the general orientation of the trips, i.e. eastbound, southbound, or from the north or west.

Route Choice - The assignment of traffic is performed using engineering judgment. As intersections and road segments approach capacity, trips are assumed to take alternate routes, which amounts to an approximation of the User Equilibrium procedure used in Policy Area Transportation Review. There is specific guidance given in the Guidelines as to which roadways are appropriate for routing of trips.

2) *Traffic Counts*

Traffic Counts are an essential data element in conducting LATR to determine existing and projected conditions. Counts are also used in establishing the validity and estimating key parameters in the TRAVEL 2 model used for PATR. Peak hour traffic counts for any location vary from day to day, week to week, and seasonally. In general traffic counts made during the summer months should not be used since traffic during this time of year is lower than normal. Traffic counts taken on holidays, or on the day before or after holidays should not be used due to their non-typical characteristics. Counts that are older than six months should be adjusted to reflect development that has been completed and occupied since the count was made. Traffic counts older than three years should not be used because of potential changes in traffic patterns and growth in traffic. The Planning Department staff reserves the right to require new counts to be made if there is reason to believe that a count is flawed.

3) *Level of Service*

a) *Critical Lane Volume Method*

The Level of Service for an intersection subject to Local Area Transportation Review is determined using the Critical Lane Volume technique. This method of analysis is described in the Guidelines.

The lowest acceptable Level of Service for policy areas with established staging ceiling is set at mid-point Level of Service E, or a CLV of 1525. For policy areas without established staging ceilings, the Group I areas, the lowest acceptable Level of Service is set at D/E, or a CLV of 1450.

b) Exceptions

Bethesda CBD - development located within the Bethesda Sector Plan area will be reviewed in accordance with the staging element recommendations of the Bethesda Sector Plan.

Friendship Heights CBD - development located within the Friendship Heights Central Business District, as defined by the 1974 Sector Plan is subject to procedures outlined in the current Adopted Annual Growth Policy.

Potomac - within Potomac, only development contributing to congestion at the following intersections will be subject to LATR:

- Montrose Road at Seven Locks Road,
- Democracy Boulevard at Seven Locks Road,
- Tuckerman Lane at Seven Locks Road,
- Democracy Boulevard at Westlake Drive,
- Westlake Drive at Westlake Terrace,
- Westlake Drive at Tuckerman Lane, and
- Bradley Boulevard at Seven Locks Road.

The Research and Development Village - development located within the Shady Grove West area, as defined in the Gaithersburg Vicinity Master Plan, will in addition to LATR, be subject to restrictions or recording in accordance with the staging plan contained in the Master Plan.

Silver Spring CBD - development will be reviewed in accordance with the currently adopted *Local Area Transportation Review Guidelines* in keeping with the general guidelines included in the Adopted Annual Growth Policy.

Appendix 2:

**Annual
Growth
Policy
Legislation**

**(Chapter 33A, Planning
Procedures, Montgomery
County Code,
Enacted April 15, 1986)**

PLANNING PROCEDURES

ARTICLE II. GROWTH POLICIES.*

Sec. 33-15. Annual growth policy.

(a) *Purpose.*

(1) The purpose of this article is to establish a process by which the county council can give policy guidance to the various agencies of government and to the general public on matters concerning:

- a. Land use development;
- b. Growth management; and
- c. Related environmental, economic, and social issues.

(2) The process will be established through the adoption by the county council of an annual growth policy, which is intended to be an instrument that facilitates and coordinates the use of the various powers of government to limit or encourage growth and development in a manner that best enhances the general health, welfare, and safety of the residents of the county.

(b) *Simplified description.*

(1) The county council must adopt a growth policy:

- a. No later than June 30 of each year; and
- b. After:

(i) Receipt of a draft annual growth policy prepared by the Montgomery County Planning Board;

(ii) Receipt of specific recommendations prepared by the county executive, and comments by other public agencies concerning the draft annual growth policy; and

(iii) A public hearing on both the draft annual growth policy and the recommendations of the executive, and on the comments of other agencies.

(2) The annual growth policy is effective for a fiscal year, beginning July 1 [and running] through June 30.

* Editor's note—1986 L.M.C., ch. 53, § 1, added div. 2, § 33A-13, which the editor has redesignated art II to conform to the style of this Code. The renumbering of §§ 33A-8—33A-12 as §§ 33A-10—33A-14 necessitated the renumbering of the sections of this article from §§ 33A-13, 33A-14 to §§ 33A-15, 33A-16.

(c) *Duties of the planning board.*

(1) The Montgomery County Planning Board must:

- a. Each year, produce a draft annual growth policy;**
- b. By December 1 of each year:**
 - (i) Send copies of the draft to the county executive, the other agencies, and the county council; and**
 - (ii) Make copies available to the general public;**
- c. By October 15, make available a staff draft to the staff of the executive and other agencies for their use in preparing recommended capital improvements programs for the next fiscal year.**

(2) The draft annual growth policy must include:

- a. A status report on the general land use conditions in the county, including:**
 - (i) The remaining growth capacity of zoned land;**
 - (ii) The pipeline of approved development permits, including preliminary subdivision plans, sewer authorizations, record plats, and building permits;**
 - (iii) The recent trends in real estate transactions;**
 - (iv) The level of service conditions of major public facilities and environmentally sensitive areas; and**
 - (v) Other relevant monitoring measures;**
- b. A forecast of the most probable trends in population, households, and employment for the next ten (10) years, including a section that focuses on the key factors that may affect the trends for the immediate next two (2) years;**
- c. A set of recommended growth capacity ceilings for each policy area within the county, for both residential and employment land uses, which are based on:**
 - (i) Alternative possible scenarios of potential public facility growth; and**
 - (ii) Recommended level of service indices for major public facilities;**
- d. A set of policy guidelines for the planning board, and other agencies as appropriate, with respect to their administration of the ordinances and regulations that affect growth and development; and**
- e. Any other information or recommendations as may be relevant to the general subject of growth policy, or as may be requested by the county council:**
 - (i) In the course of adopting the annual growth policy for the year; or**

(ii) By a subsequent resolution.

(d) *Duties of the county executive.*

(1) By January 1 of each year, the county executive must send to the county council:

a. Recommended growth capacity ceilings for each planning policy area, for both residential and employment land uses, that are consistent with the recommended capital improvements program; and

b. Any other revisions in the draft of the planning board in the form of specific additions or deletions.

(2) At the same time, the county executive must make available to the planning board, the other agencies, and the general public copies of these recommendations.

(3) During the year, the county executive must assist the planning board to compile its status report for the draft annual growth policy by making available monitoring data that is routinely collected by executive branch departments.

(4) The county executive must use the information in the draft annual growth policy of the planning board as a reference document in preparing the recommended capital improvements program of the executive for the next fiscal year, particularly with respect to the linkage between future capital construction schedules and policy area capacity ceilings.

(e) *Duties of the Montgomery County Board of Education.*

(1) By January 1 of each year, the Montgomery County Board of Education must send to the county council its comments on the draft annual growth policy of the planning board, including any recommended revisions in the form of specific additions or deletions.

(2) At the same time, the board of education must make available to the planning board and the general public copies of the comments and recommended revisions.

(3) During the year, the board of education must assist the planning board to compile its status report for the draft annual growth policy by making available monitoring data that is routinely collected by branch departments of the board of education.

(f) *Duties of the Washington Suburban Sanitary Commission.*

(1) By January 1 of each year, the Washington Suburban Sanitary Commission must send to the county council its comments on the draft annual growth policy of the planning board, including any recommended revisions in the form of specific additions or deletions.

(2) At the same time, the Washington Suburban Sanitary Commission must make available to the planning board and the general public copies of the comments and recommended revisions.

(3) During the year, the Washington Suburban Sanitary Commission must assist the planning board to compile its status report for the draft annual growth policy by making available monitoring data that is routinely collected by branch departments of the Washington Suburban Sanitary Commission.

(g) Duties of the county council.

(1) After receipt of the draft annual growth policy, the recommendations of the county executive, and the other agency comments, the county council must hold a public hearing on the draft, recommendations and comments.

(2) No later than June 30 of each year, the county council must adopt an annual growth policy to be effective throughout the next fiscal year. If the county council does not adopt a new annual growth policy, the annual growth policy adopted the previous year remains in effect.

(3) When adopting the annual growth policy, the county council must approve, or approve with amendments, the recommendations of the county executive.

(4) The county council may adopt a subsequent resolution, after public hearing, to amend the annual growth policy. (1986 L.M.C., ch. 53, § 1.)

Appendix 3:

**Adequate
Public
Facilities
Ordinance**

**(Chapter 50-35(k),
Subdivision of Land
Montgomery County Code,
Adopted April 22, 1986)**

(k) Adequate Public Facilities. A preliminary plan of subdivision must not be approved unless the Planning Board determines that public facilities will be adequate to support and service the area of the proposed subdivision. The applicant shall, at the request of the Planning Board, submit sufficient information and data on the proposed subdivision to demonstrate the expected impact on and use of public facilities by possible uses of said subdivision. Public facilities and services to be examined for adequacy will include roads and public transportation facilities, sewerage and water service, schools, police stations, firehouses, and health clinics.

(1) Periodically the District Council will establish by resolution, after public hearing, guidelines for the determination of the adequacy of public facilities and services. An Annual Growth Policy approved by the County Council may serve this purpose if it contains those guidelines. To provide the basis for the guidelines, the Planning Board and the County Executive must provide information and recommendations to the Council as follows:

a. The Planning Board must prepare an analysis of current growth and the amount of additional growth that can be accommodated by future public facilities and services. The Planning Board must also recommend any changes in preliminary plan approval criteria it finds appropriate in the light of its experience in administering these regulations.

b. The County Executive must comment on the analyses and recommendations of the Planning Board and must recommend criteria for the determination of the adequacy of public facilities as the Executive deems appropriate.

(2) The applicant for a preliminary plan of subdivision must, at the request of the Planning Board, submit sufficient information and data on the proposed subdivision to demonstrate the expected impact on and use of public facilities and services by possible uses of said subdivision.

(3) The Planning Board must submit the preliminary plan of subdivision to the County Executive in addition to the agencies specified in Section 50-35(a).

(4) The Planning Board must consider the recommendations of the County Executive and other agencies in determining the adequacy of public facilities and services in accordance with the guidelines and limitations established by the County Council in its Annual Growth Policy or established by resolution of the District Council after public hearing.

(5) Until such time as the Annual Growth Policy or resolution of the District Council provides guidelines and limitations for the determination of the adequacy of public facilities and services, public facilities may be determined to be adequate to service a tract of land or an affected area when the following conditions are found to exist:

a. The tract or area will be adequately served by roads and public transportation facilities. Said area or tract to be subdivided shall be deemed adequately served by roads and public transportation facilities if, after taking into account traffic

generated by all approved subdivisions and the subject subdivision, the following conditions will be satisfied:

1. For the geographic area in which the proposed subdivision is located, an acceptable average peak-hour level of service will result from:

- i. Existing publicly maintained all-weather roads;
- ii. Additional roads programmed in the current adopted Capital Improvements Program of the County or the Maryland Consolidated Transportation Program, for which 100 percent of the expenditures for construction are estimated to occur in the first four years of the program; and
- iii. Available or programmed public bus, rail, or other public or private form of mass transportation.

2. For intersections or links significantly affected by traffic from the subject subdivision, an acceptable peak hour level of service will result from:

- i. Existing publicly maintained all-weather roads;
- ii. Additional roads identified on the Approved Road Program published by the County Executive; and
- iii. Available or programmed public bus, rail, or other form of mass transportation.

3. For the purposes of subsection 2. above, the County Executive shall publish periodically an Approved Road Program which shall list all roads programmed in the current adopted Capital Improvements Program and the Maryland Consolidated Transportation Program for which:

- i. in the case of the Capital Improvements Program, 100 percent of the funds have been appropriated for construction costs; and
- ii. the County Executive has determined that construction will begin within two years of the effective date of the Approved Road Program.

4. For the purposes of subsection 1. and 3. above, roads required under Section 302 of the Charter to be authorized by law are not considered programmed until they are finally approved in accordance with Section 20-1 of this Code. (# 86-4, Ord. # 10-71.)

5. Any parcel zoned for light industrial use (I-1) which has been in reservation for public use pursuant to action of the Montgomery County Planning Board at any time since June 1, 1981, and which has not changed in size or shape since

June 1, 1958, will not be subject to the above subsection (a) if a preliminary plan was submitted prior to June 1, 1981. (# 85-4, Ord. # 10-60.)

b. The tract or area has adequate sewerage and water service.

1. For a subdivision dependent upon public sewerage and water systems:

i. Said area or tract to be subdivided shall be deemed to have adequate sewerage and water service if located within an area in which water and sewer service is presently available, under construction, or designated by the County Council for extension of water and sewer service within the first two years of a current approved Ten-Year Water and Sewerage Plan.

ii. If said area or tract to be subdivided is not situated within an area designated for service within the first two years of a current approved Ten-Year Water and Sewerage Plan, but is within the last eight years of such plan, it shall be deemed to have adequate water and sewerage service if the applicant provides community sewerage and/or water systems as set forth in Section 387C of Article 43 of the Annotated Code of Maryland provided the installation of such facilities shall have been approved by the State Department of Health and Mental Hygiene, the Washington Suburban Sanitary Commission, the County Department of Environmental Protection, and the Montgomery County Council.

2. For a subdivision dependent upon the use of septic systems: Said area or tract to be subdivided shall be deemed to have adequate sewerage service if development with the use of septic systems is in accordance with Section 50-27, or regulations published by the Maryland State Department of Health and Mental Hygiene pursuant to Article 43, Annotated Code of Maryland, whichever imposes the greater or more stringent requirement.

3. In its determination of the adequacy of sewerage or water service, the Planning Board shall consider the recommendation of the Washington Suburban Sanitary Commission, the capacity of trunk lines and sewerage treatment facilities and any other information presented.

c. The tract or area is so situated as not to involve danger or injury to health, safety or general welfare. Such danger or injury may be deemed not to exist:

1. When physical facilities, such as police stations, firehouses and health clinics, in the service area for the preliminary subdivision plan are currently adequate or are scheduled in an adopted Capital Improvements Program in accordance with the applicable area master plan or General Plan to provide adequate and timely service to the subdivision; and

2. If adequate public utility services will be available to serve the proposed subdivision; and

3. When, in the case of schools, the capacity and service areas are found to be adequate according to a methodology set forth in a resolution adopted by the District Council after public hearing; provided, however, that until such resolution by the District Council takes effect, the Planning Board shall determine the adequacy of school facilities after considering the recommendations of the Superintendent of Schools. (85-4, Ord. # 10-60.)

d. Existing or proposed street access within the tract or area is adequate. Street access may be deemed adequate if the streets:

1. Are adequate to serve or accommodate emergency vehicles,
2. Will permit the installation of public utilities and other public services,
3. Are not detrimental and would not result in the inability to develop adjacent lands in conformity with sound planning practices, and
4. Will not cause existing street patterns to be fragmented.

(6) For a proposed subdivision located in a transportation management district designated under Chapter 42A, Article II, if the Planning Board determines, under criteria and standards adopted by the County Council, that additional transportation facilities or traffic alleviation measures are necessary to ensure that public transportation facilities will be adequate to serve the proposed subdivision, the subdivision plan may not be approved unless approval is subject to the execution of a traffic mitigation agreement. (# 87-1, Ord. # 11-18.)

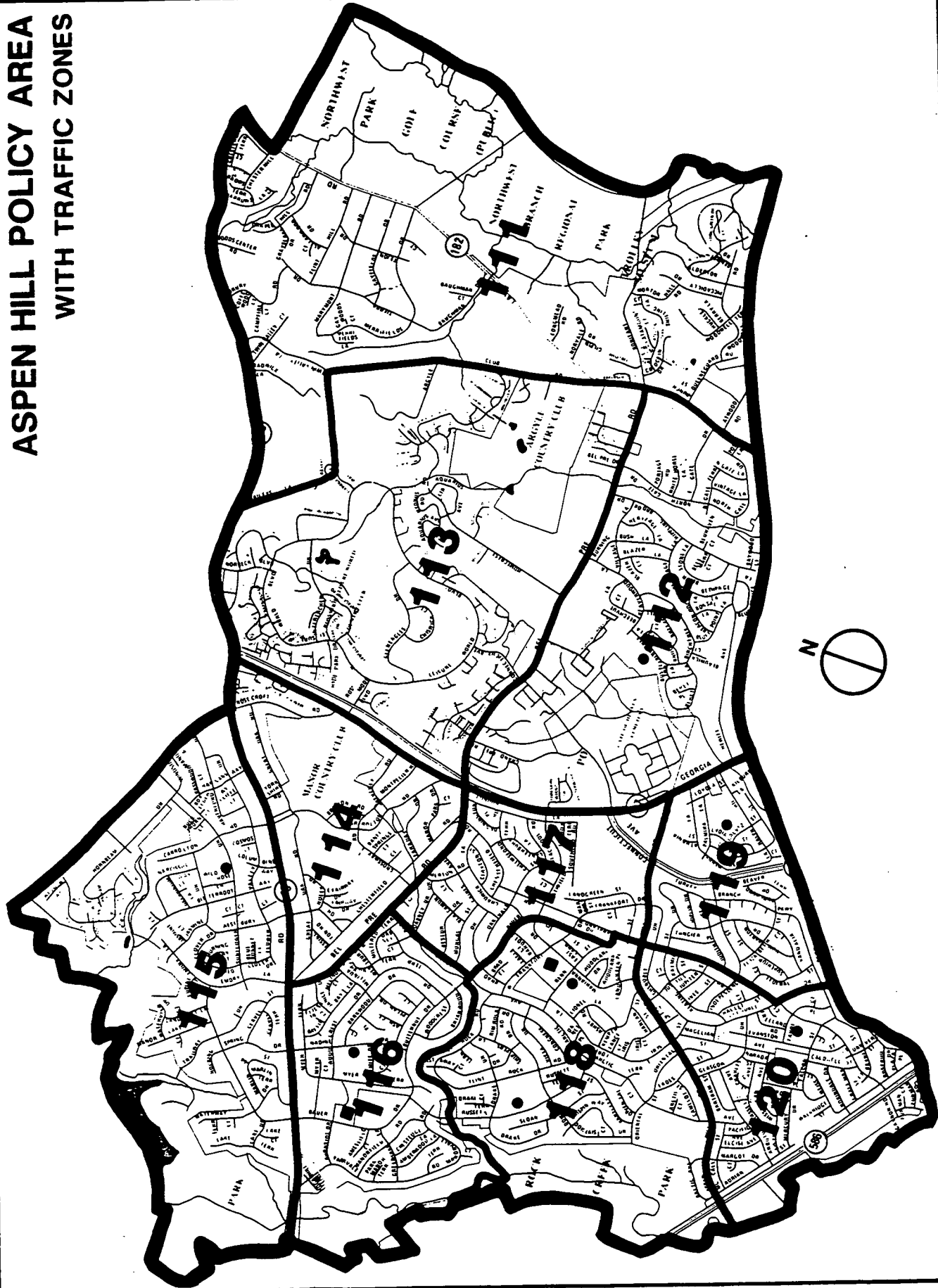
(7) Exemptions. Places of worship and residences for staff, parish halls, and additions to schools associated with places of worship, are not subject to the provisions of section 50-35(k), adequate public facilities. (# 85-4, Ord. # 10-60; # 86- 4, Ord. # 10-71.)

(l) Relation to Master Plan. In determining the acceptability of the preliminary plan submitted under the provisions of this chapter, the Planning Board must consider the applicable master plan. A preliminary plan must substantially conform to the applicable master plan, including maps and text, unless the Planning Board finds that events have occurred to render the relevant master plan recommendation no longer appropriate. (# 87-1, Ord. # 11-28.)

Appendix 4

Policy Area Maps

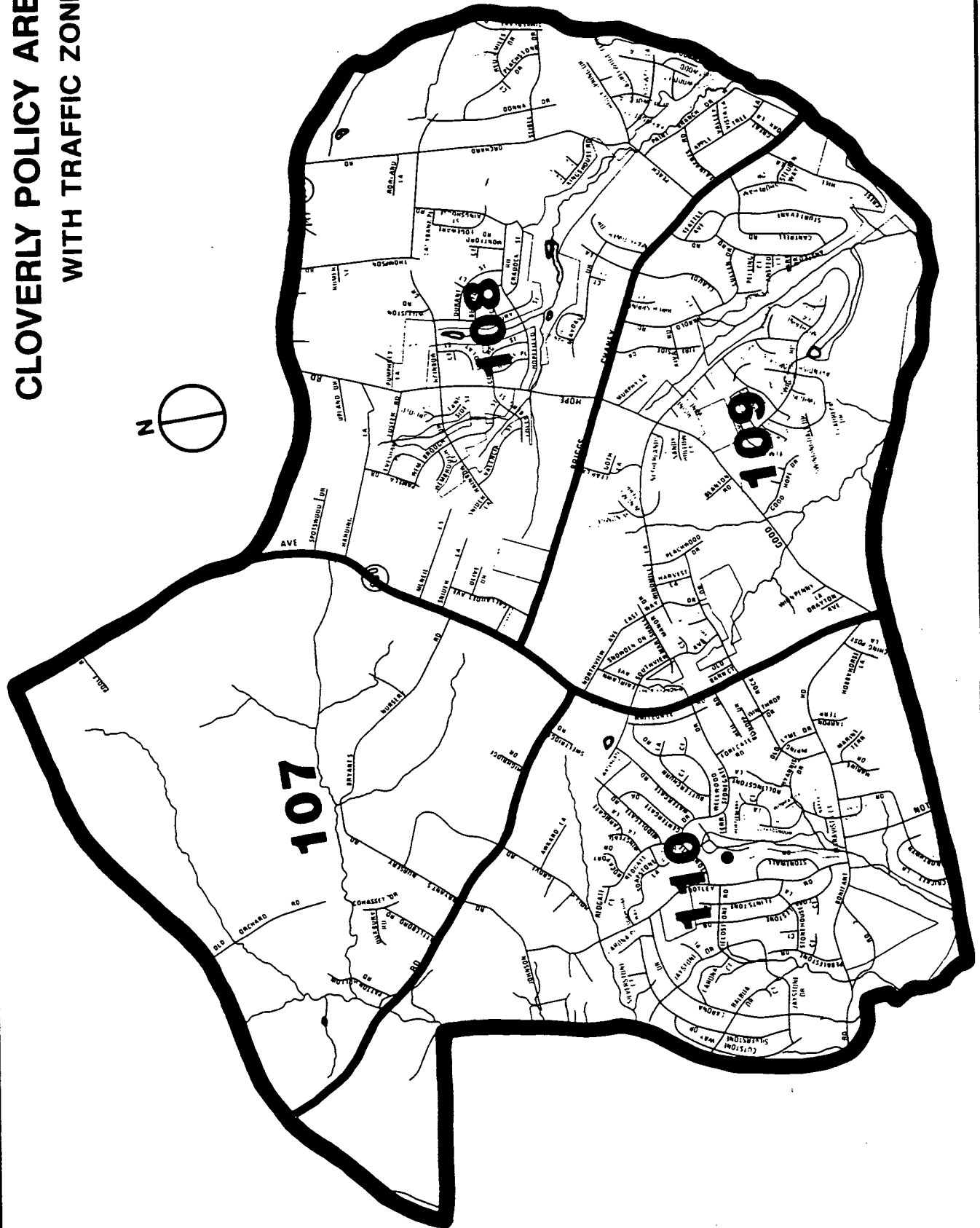
ASPEN HILL POLICY AREA WITH TRAFFIC ZONES



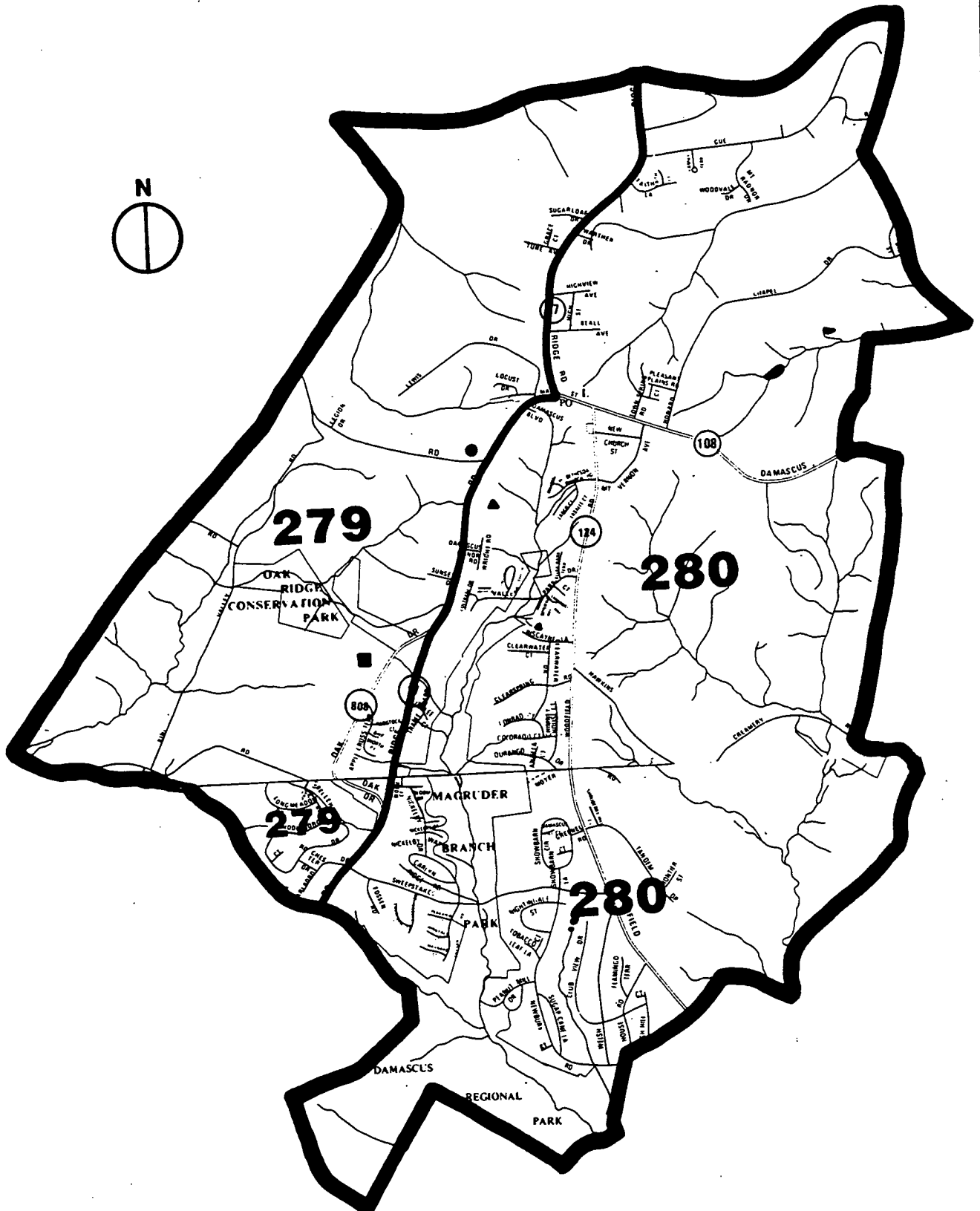
BETHESDA CBD POLICY AREA WITH TRAFFIC ZONES



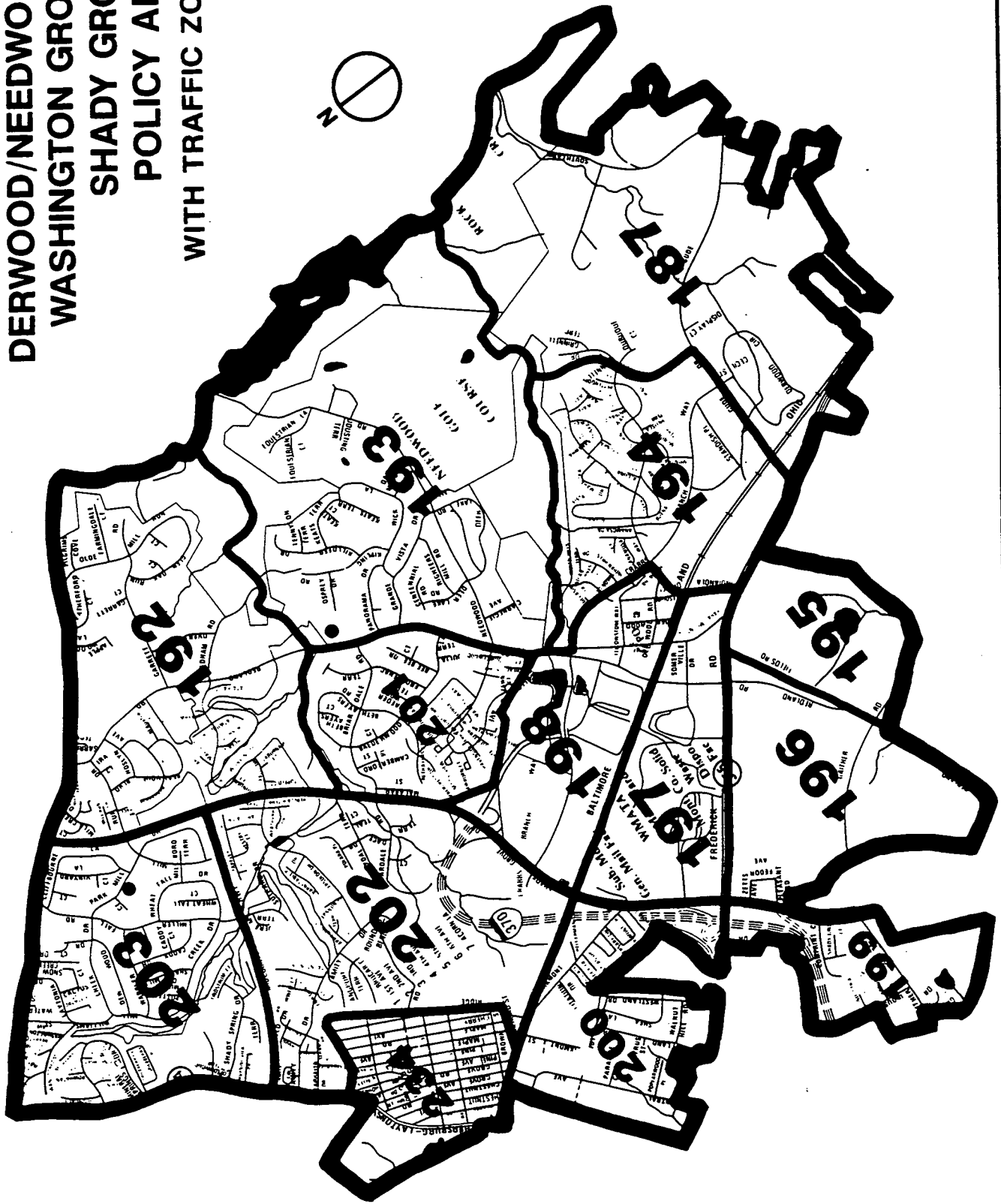
CLOVERLY POLICY AREA WITH TRAFFIC ZONES



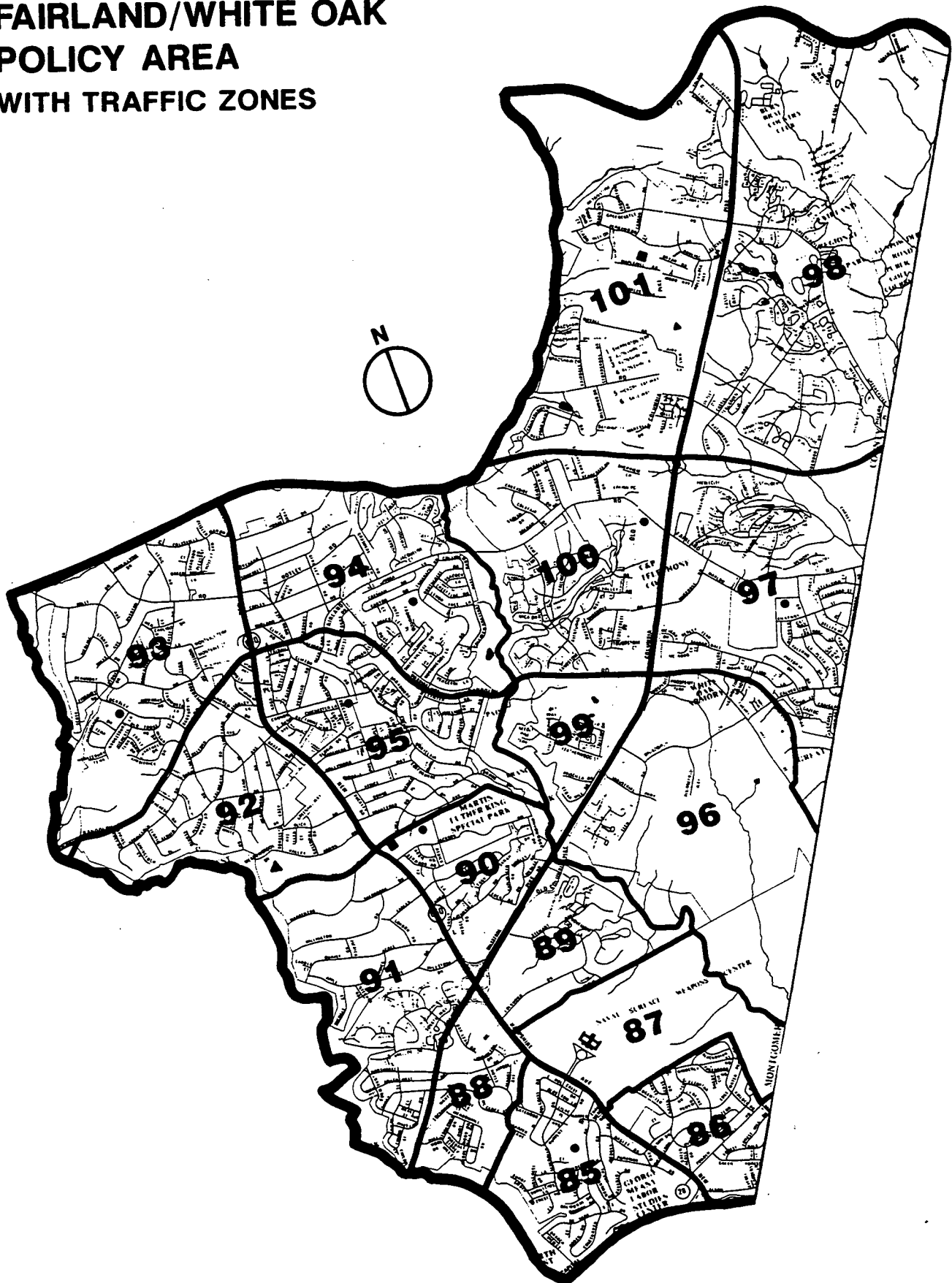
DAMASCUS POLICY AREA WITH TRAFFIC ZONES



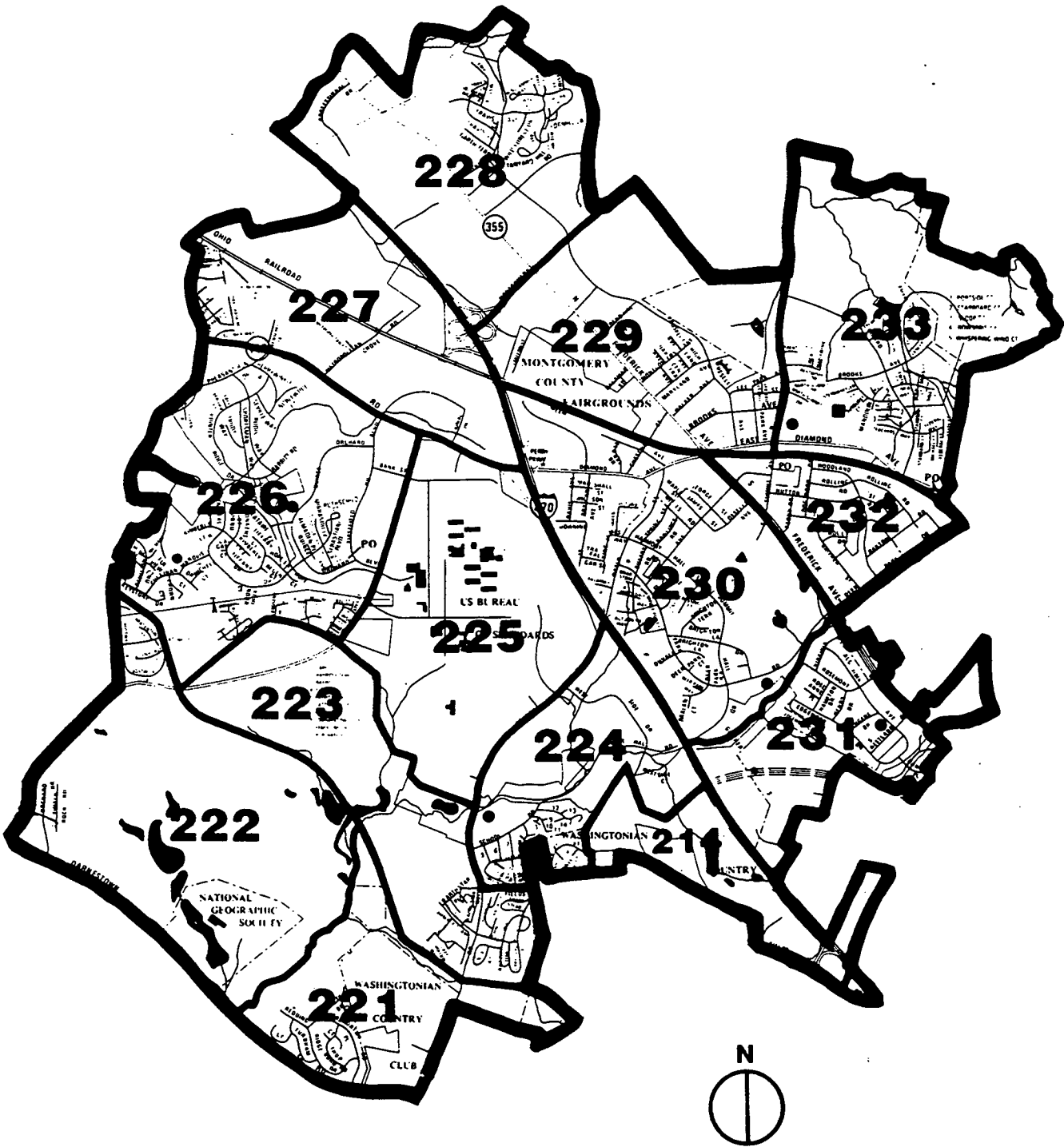
DERWOOD/NEEDWOOD/ WASHINGTON GROVE/ SHADY GROVE POLICY AREA WITH TRAFFIC ZONES



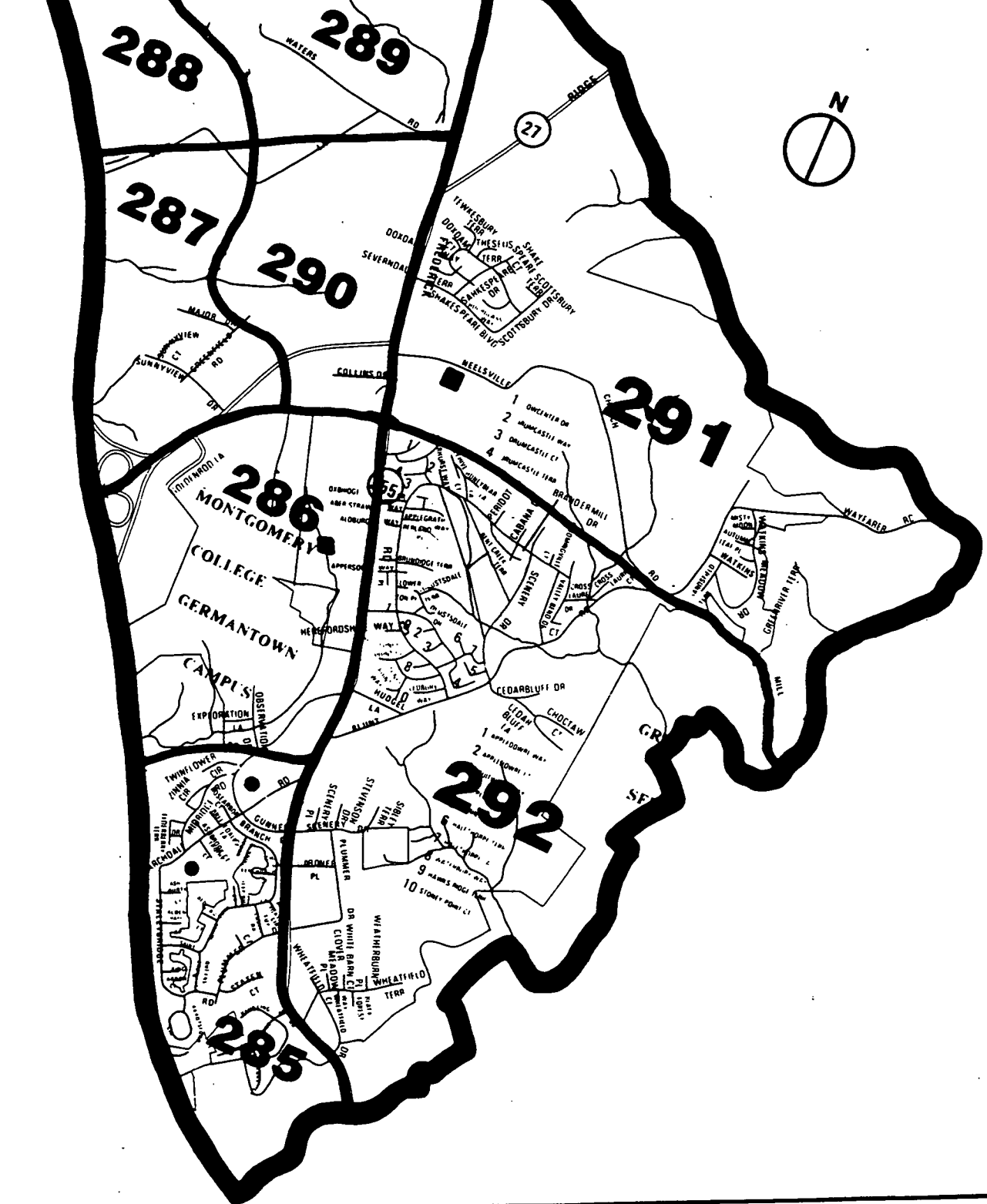
**FAIRLAND/WHITE OAK
POLICY AREA
WITH TRAFFIC ZONES**



**GAITHERSBURG CITY
POLICY AREA
WITH TRAFFIC ZONES**

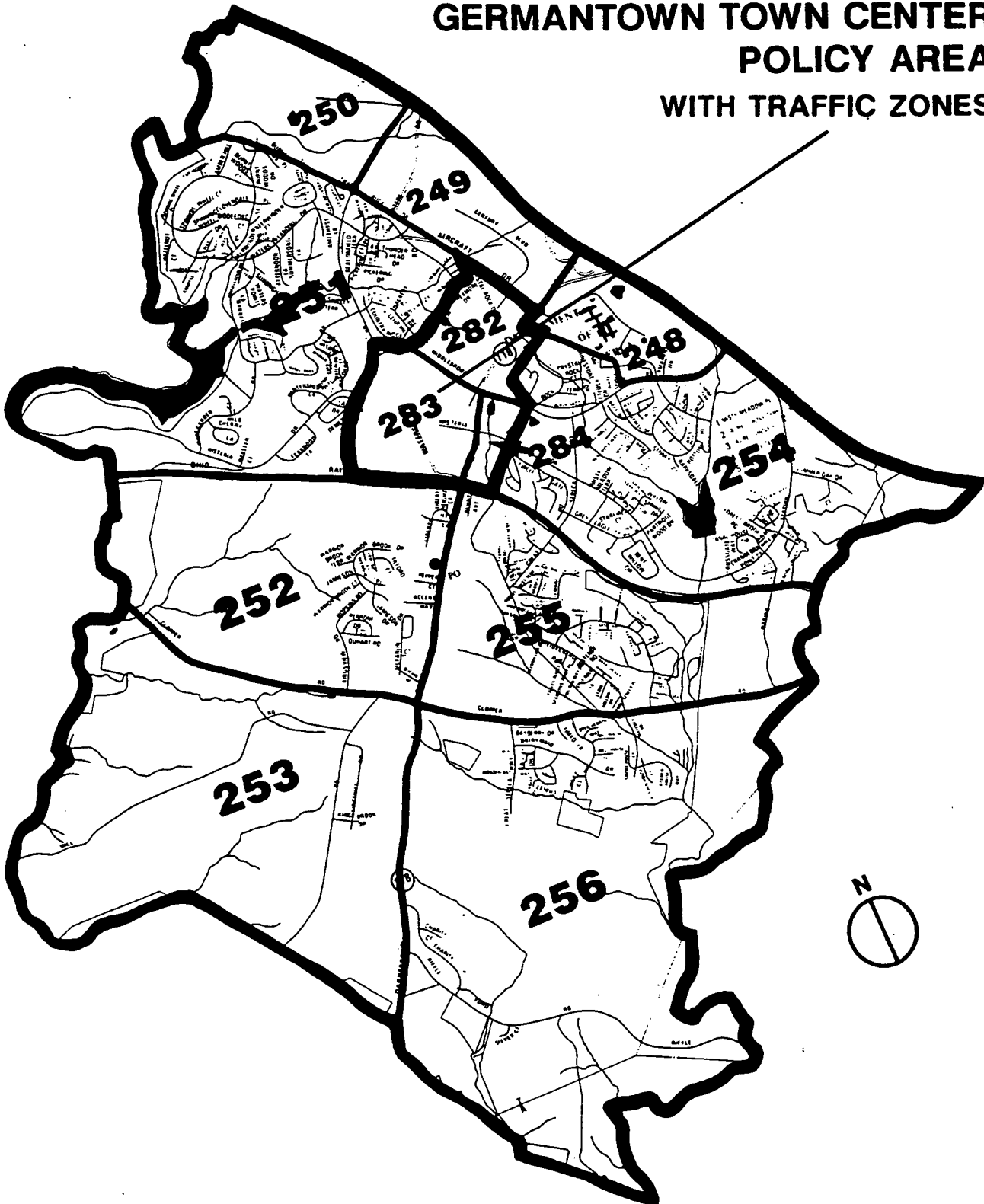


GERMANTOWN EAST POLICY AREA WITH TRAFFIC ZONES

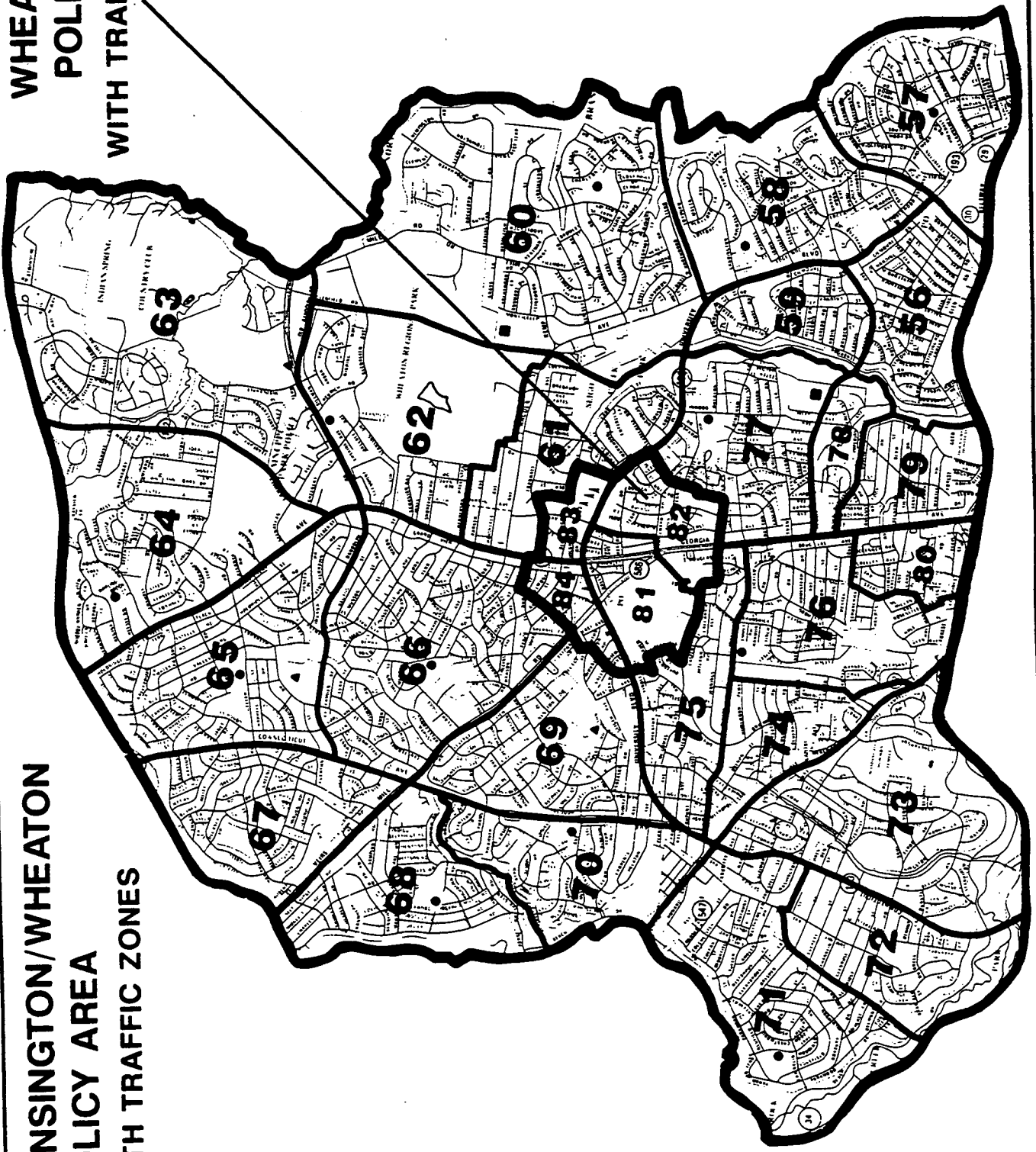


**GERMANTOWN WEST POLICY AREA
WITH TRAFFIC ZONES**

**GERMANTOWN TOWN CENTER
POLICY AREA
WITH TRAFFIC ZONES**

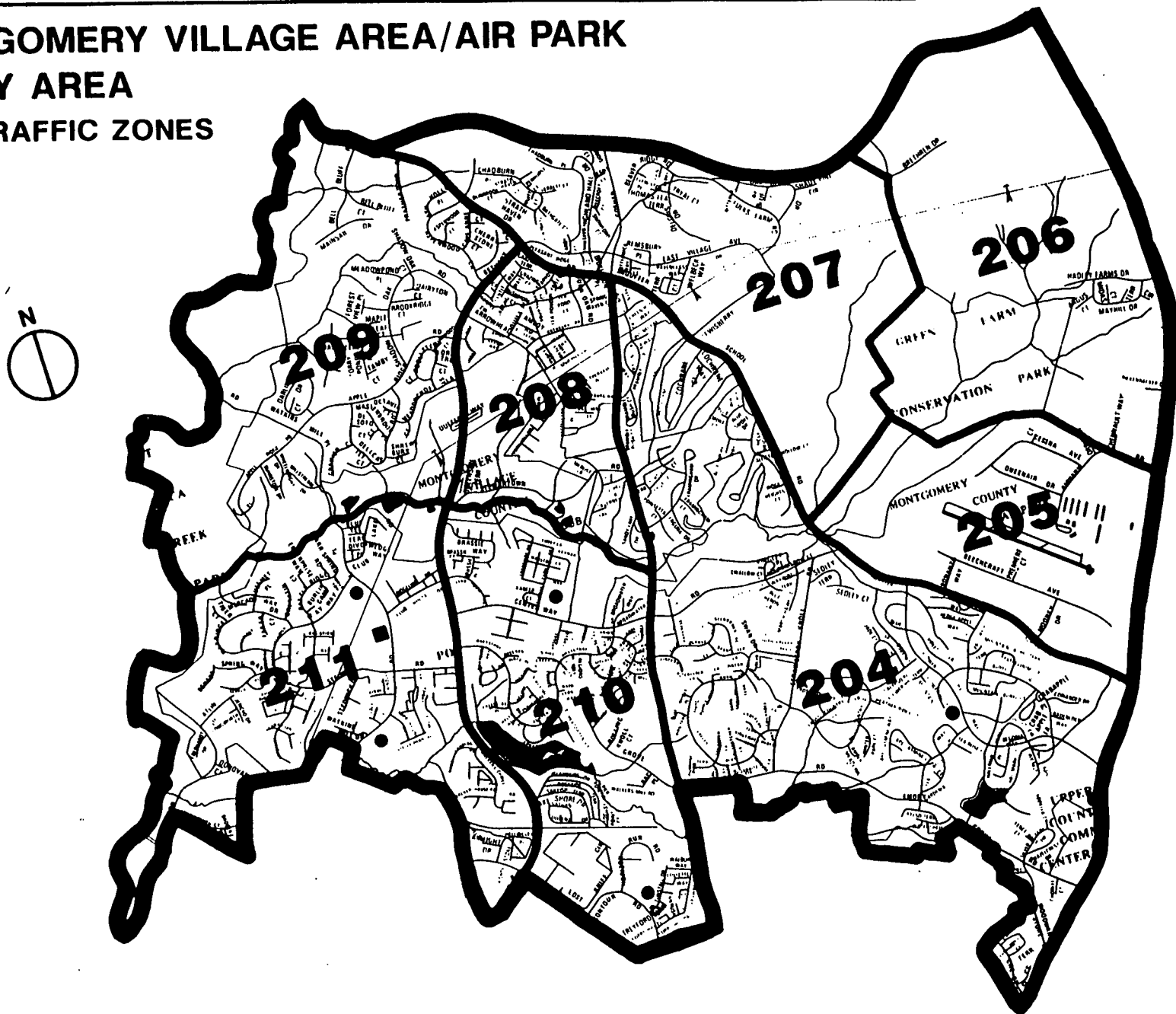


**WHEATON CBD
POLICY AREA
WITH TRAFFIC ZONES**

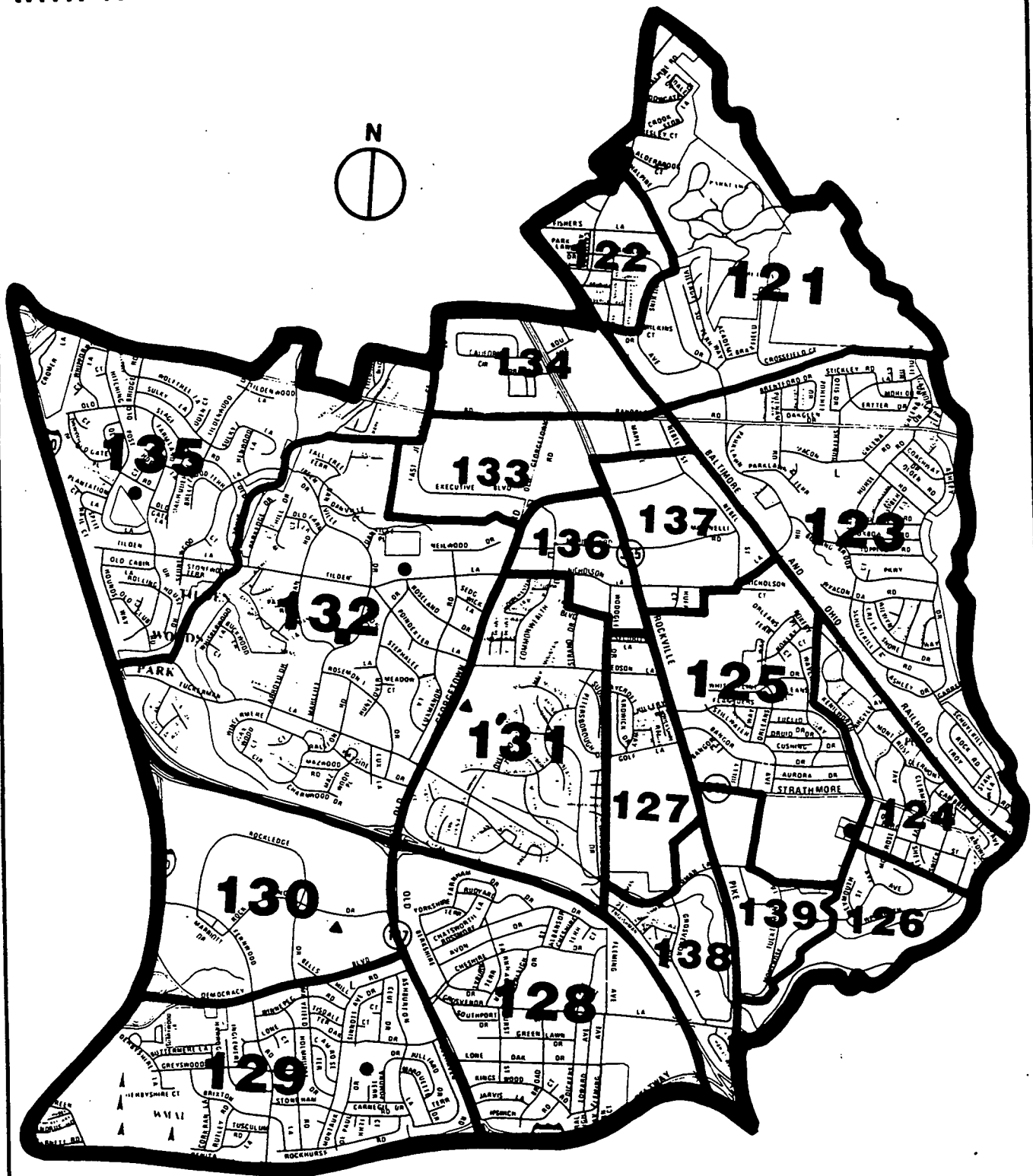


**KENSINGTON/WHEATON
POLICY AREA
WITH TRAFFIC ZONES**

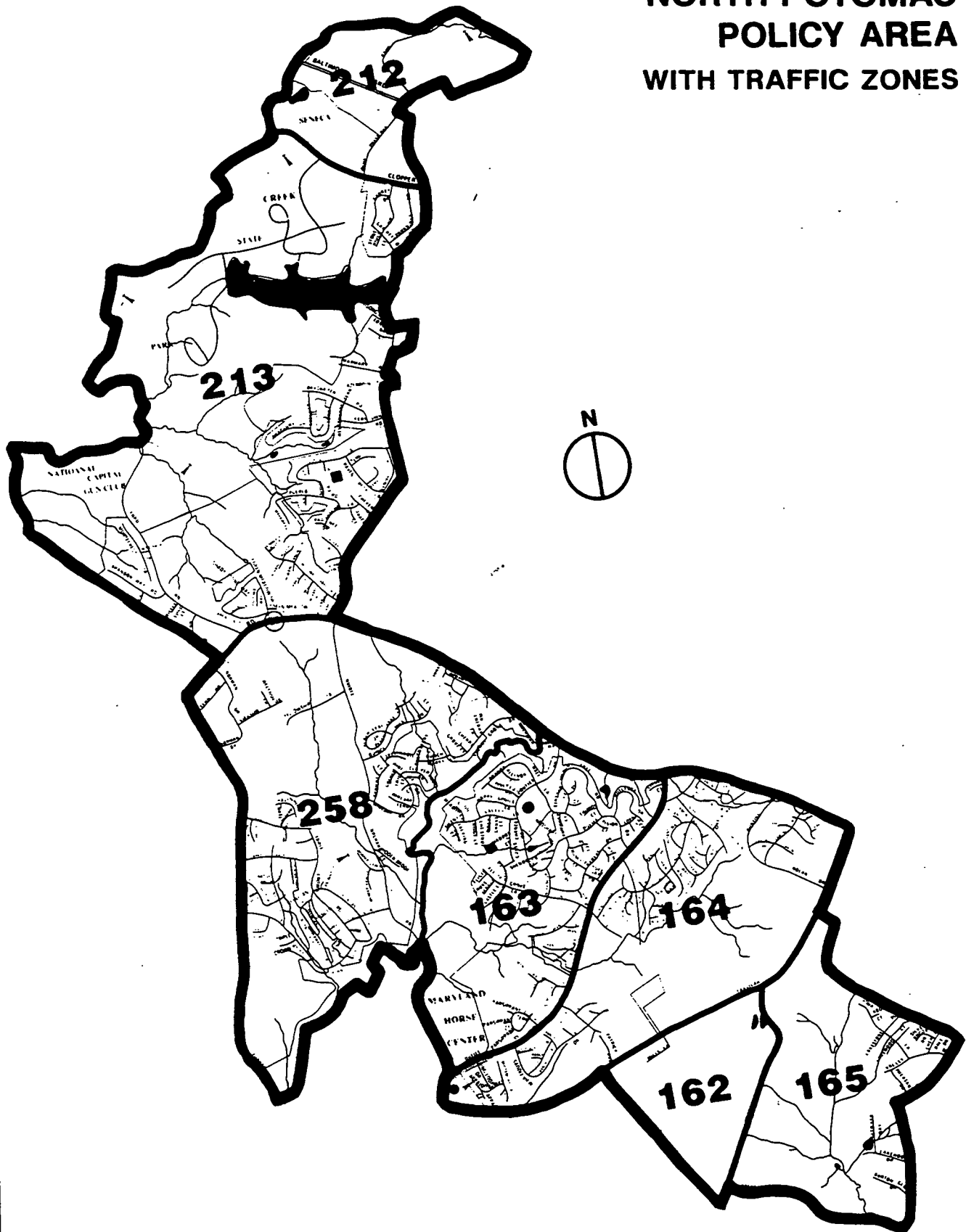
MONTGOMERY VILLAGE AREA/AIR PARK POLICY AREA WITH TRAFFIC ZONES



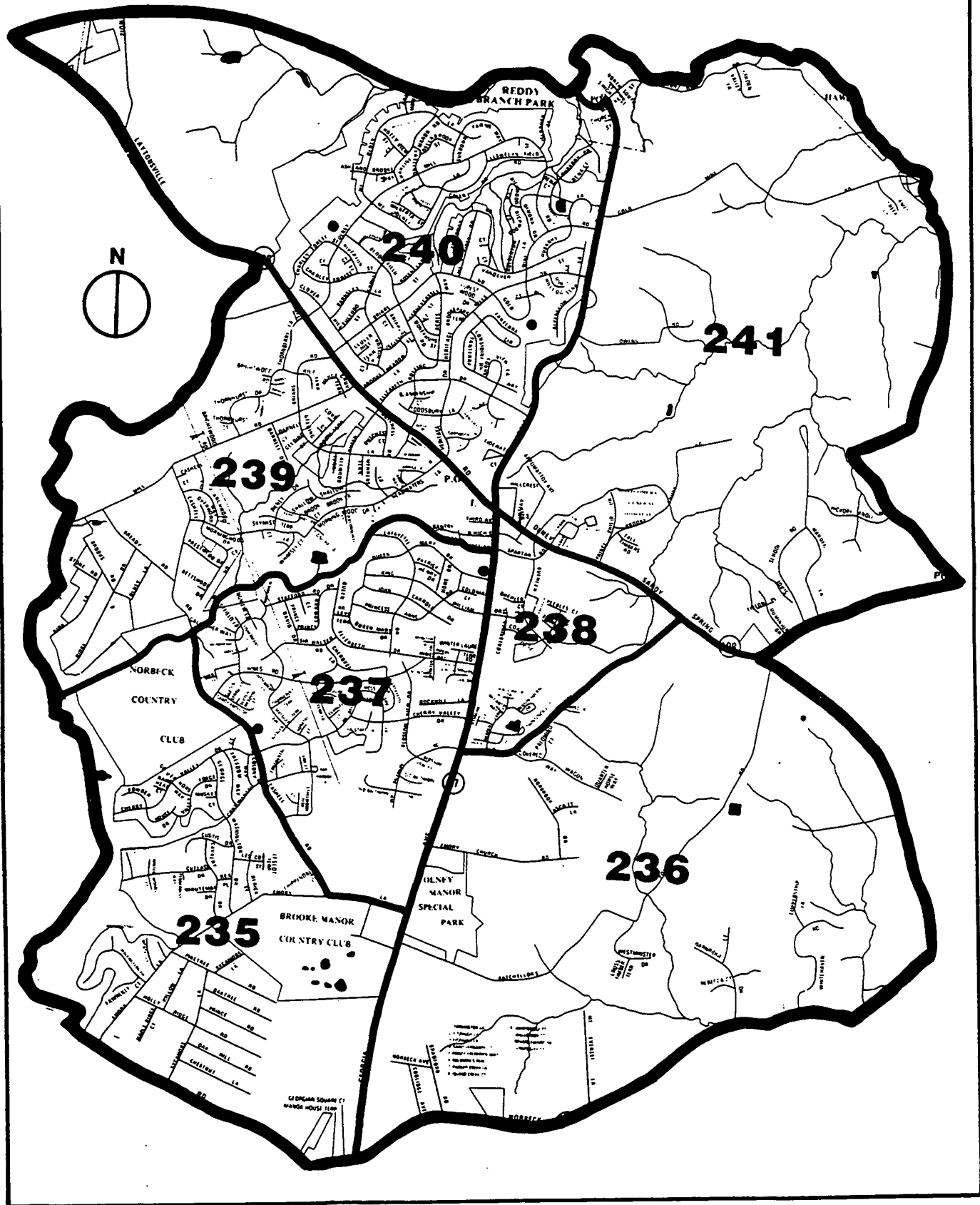
NORTH BETHESDA POLICY AREA WITH TRAFFIC ZONES



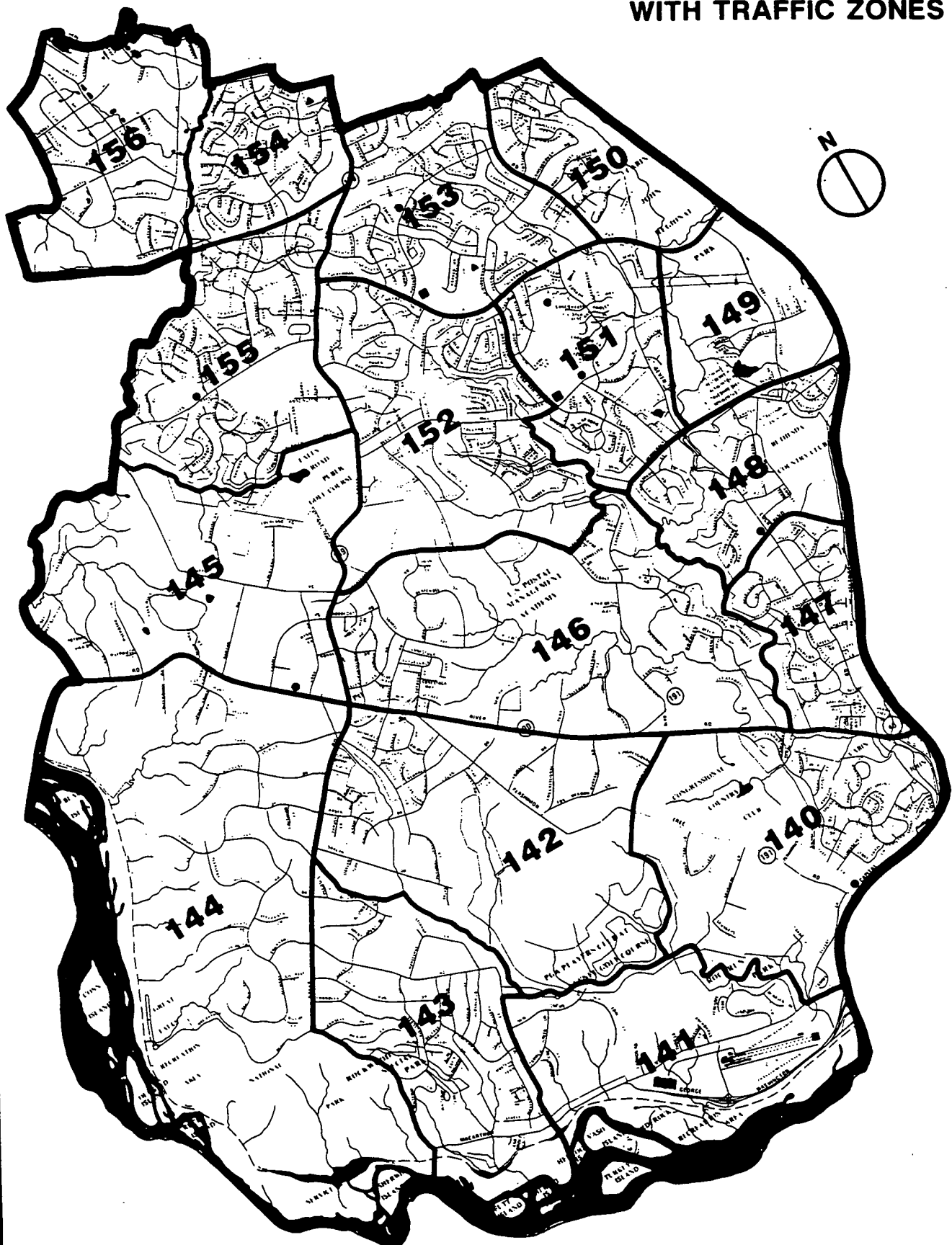
**NORTH POTOMAC
POLICY AREA
WITH TRAFFIC ZONES**



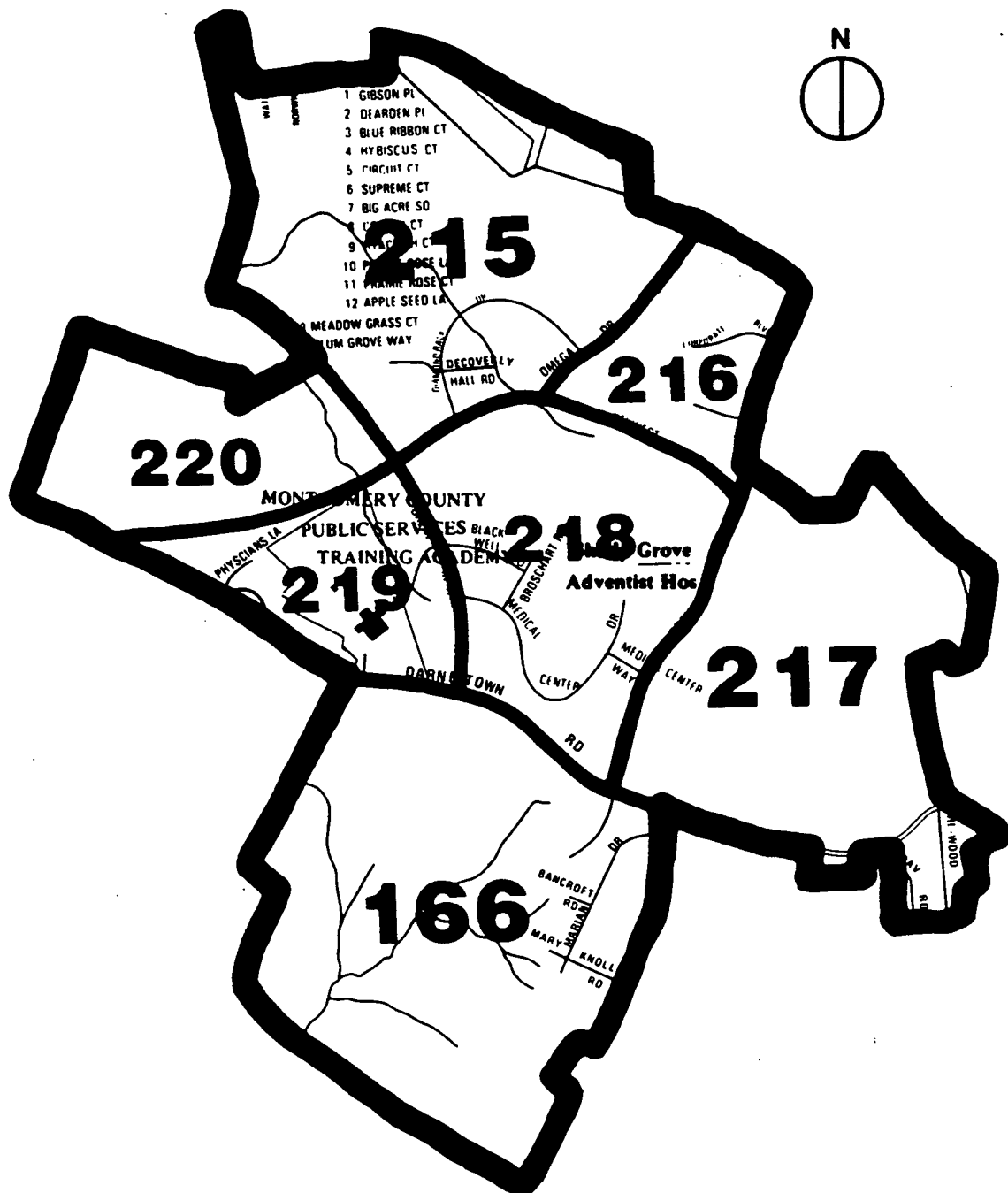
OLNEY POLICY AREA WITH TRAFFIC ZONES



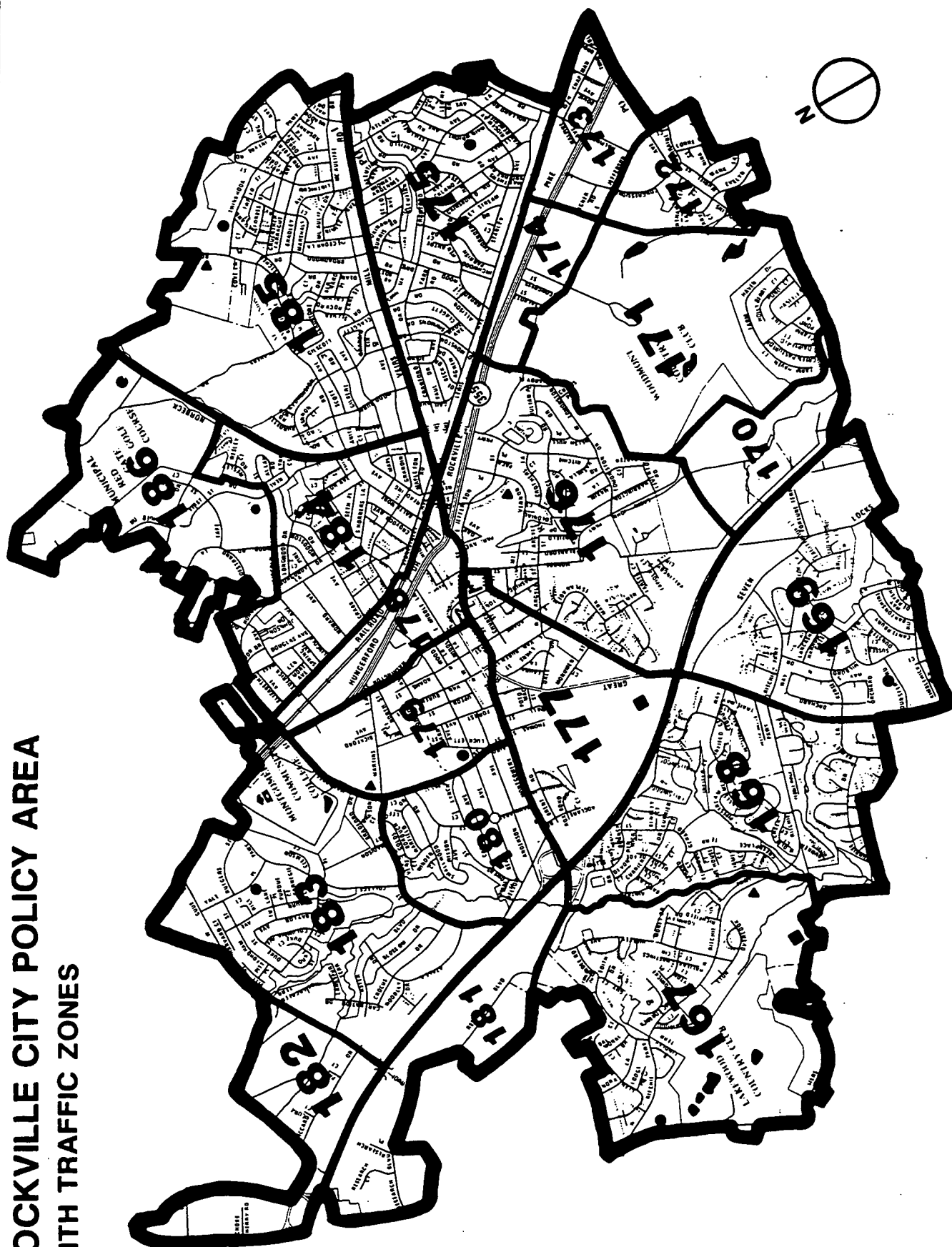
POTOMAC POLICY AREA WITH TRAFFIC ZONES



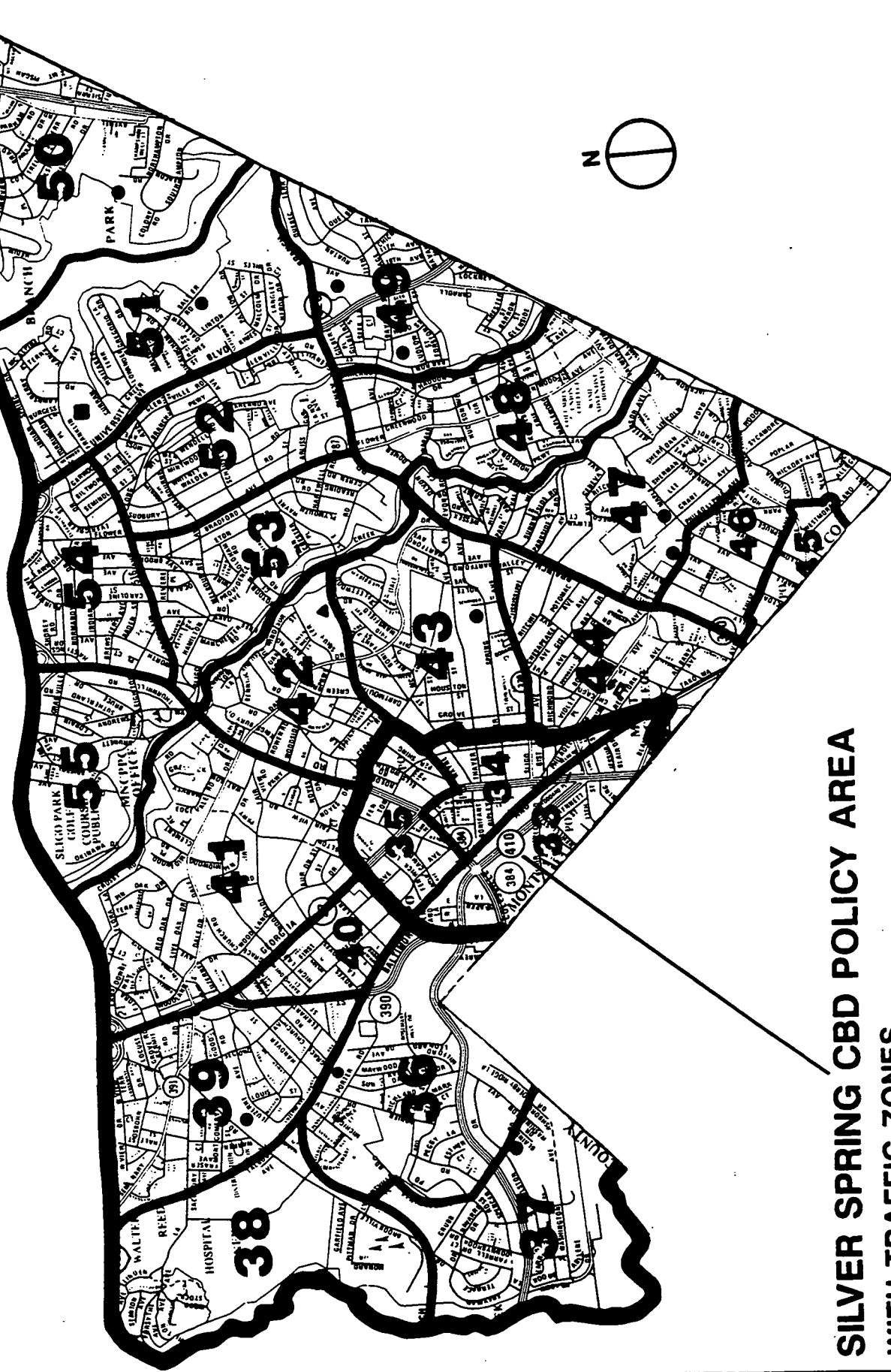
R & D VILLAGE POLICY AREA WITH TRAFFIC ZONES



**ROCKVILLE CITY POLICY AREA
WITH TRAFFIC ZONES**



SILVER SPRING/TAKOMA PARK POLICY AREA WITH TRAFFIC ZONES



SILVER SPRING CBD POLICY AREA WITH TRAFFIC ZONES

Appendix 5:

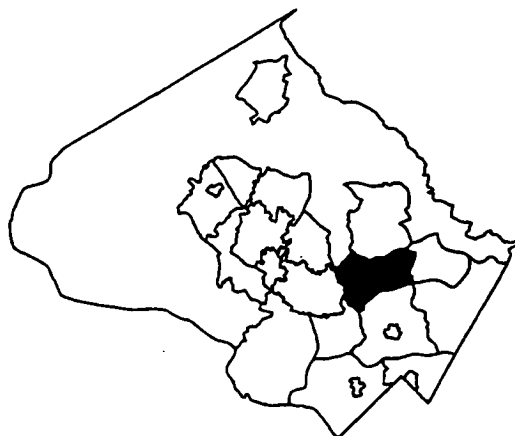
**Policy Area
Staging Tables
And
Profiles**

ASPEN HILL

	JOBS	HOUSING
1992 Base	6,344	22,146
Gross Pipeline (9/24/92)	6,358	24,655
FY 93 Gross Ceiling	6,692	19,934
Net Remaining	334	(4,721)
FY 94 Gross Anticipated Ceiling	6,692	19,934
Net Remaining	334	(5,145)

PROFILE (1992 Estimate)

	Number	Rank
Draft Job Queue (10/13/92)	25	18
Draft Housing Queue (10/13/92)	27	17
Jobs/Housing Ratio	0.29	20
Land Area in Square Miles	12.54	6

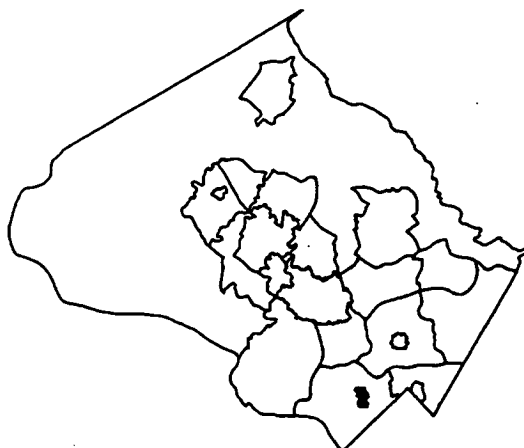


BETHESDA CBD

	JOBS	HOUSING
1992 Base	38,477	4,978
Gross Pipeline (9/24/92)	40,086	5,201
FY 93 Gross Ceiling	40,391	6,063
Net Remaining	305	862
FY 94 Gross Anticipated Ceiling	40,391	6,063
Net Remaining	305	500

PROFILE (1992 Estimate)

	Number	Rank
Draft Job Queue (10/13/92)	2,699	4
Draft Housing Queue (10/13/92)	100	12
Jobs/Housing Ratio	7.72	2
Land Area in Square Miles	0.66	20

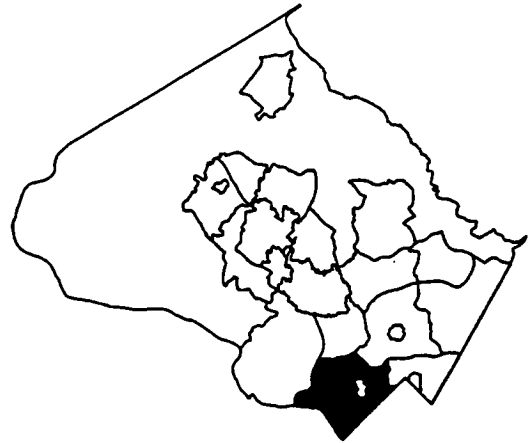


BETHESDA/CHEVY CHASE

	JOB	HOUSING
1992 Base	45,457	30,731
Gross Pipeline (9/24/92)	49,075	31,602
FY 93 Gross Ceiling	56,306	34,021
Net Remaining	7,231	2,419
FY 94 Gross Anticipated Ceiling	56,306	34,021
Net Remaining	7,231	2,419

PROFILE (1992 Estimate)

	Number	Rank
Draft Job Queue (10/13/92)	2	19
Draft Housing Queue (10/13/92)	44	16
Jobs/Housing Ratio	1.48	10
Land Area in Square Miles	20.17	3

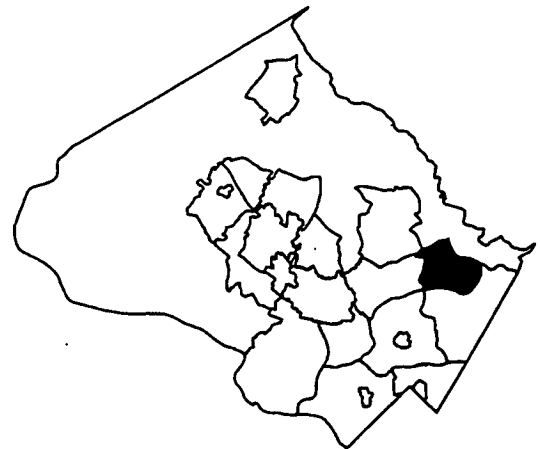


CLOVERLY

	JOB	HOUSING
1992 Base	547	4,601
Gross Pipeline (9/24/92)	577	4,968
FY 93 Gross Ceiling	347	2,831
Net Remaining	(45)	(2,137)
FY 94 Gross Anticipated Ceiling	854	2,194
Net Remaining	255	(637)

PROFILE (1992 Estimate)

	Number	Rank
Draft Job Queue (10/13/92)	0	20
Draft Housing Queue (10/13/92)	604	5
Jobs/Housing Ratio	0.12	21
Land Area in Square Miles	9.96	11

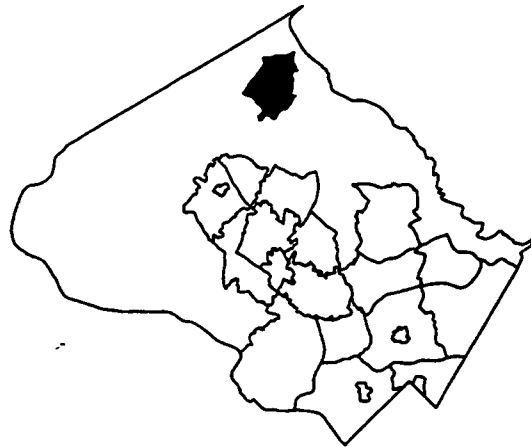


DAMASCUS

	JOBS	HOUSING
1992 Base	1,906	2,539
Gross Pipeline (9/24/92)	2,200	2,883
FY 93 Gross Ceiling	2,285	1,915
Net Remaining	85	(968)
FY 94 Gross Anticipated Ceiling	2,285	1,915
Net Remaining	85	(968)

PROFILE (1992 Estimate)

	Number	Rank
Draft Job Queue (10/13/92)	719	8
Draft Housing Queue (10/13/92)	99	13
Jobs/Housing Ratio	0.75	14
Land Area in Square Miles	9.60	13



DERWOOD/NEEDWOOD/ WASHINGTON GROVE/SHADY GROVE

	JOBS	HOUSING
1992 Base	23,140	5,636
Gross Pipeline (9/24/92)	25,737	5,769
FY 93 Gross Ceiling	23,342	7,148
Net Remaining	(2,395)	1,379
FY 94 Gross Anticipated Ceiling	23,342	7,148
Net Remaining	(2,395)	1,379

PROFILE (1992 Estimate)

	Number	Rank
Draft Job Queue (10/13/92)	5,194	2
Draft Housing Queue (10/13/92)	204	8
Jobs/Housing Ratio	4.11	7
Land Area in Square Miles	9.12	15

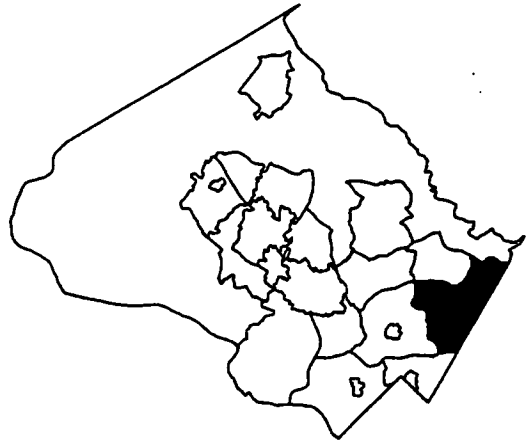


FAIRLAND/WHITE OAK

	JOBS	HOUSING
1992 Base	24,820	25,324
Gross Pipeline (9/24/92)	31,350	26,790
FY 93 Gross Ceiling	21,971	24,335
Net Remaining	(9,379)	(2,455)
FY 94 Gross Anticipated Ceiling	27,971	22,130
Net Remaining	(9,379)	(2,205)

PROFILE (1992 Estimate)

	Number	Rank
Draft Job Queue (10/13/92)	62	17
Draft Housing Queue (10/13/92)	637	4
Jobs/Housing Ratio	.98	11
Land Area in Square Miles	20.87	2

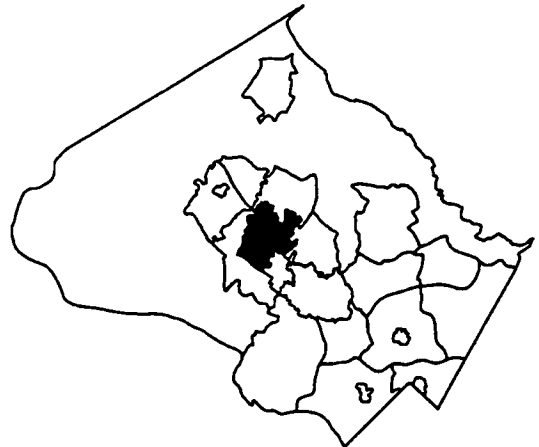


GAITHERSBURG CITY

	JOBS	HOUSING
1992 Base	39,726	17,408
Gross Pipeline (9/24/92)	58,492	19,540
FY 93 Gross Ceiling	54,602	21,757
Net Remaining	(3,890)	2,217
FY 94 Gross Anticipated Ceiling	54,602	21,757
Net Remaining	(3,890)	2,217

PROFILE (1992 Estimate)

	Number	Rank
Draft Job Queue (10/13/92)	0	21
Draft Housing Queue (10/13/92)	57	14
Jobs/Housing Ratio	2.28	9
Land Area in Square Miles	10.67	9

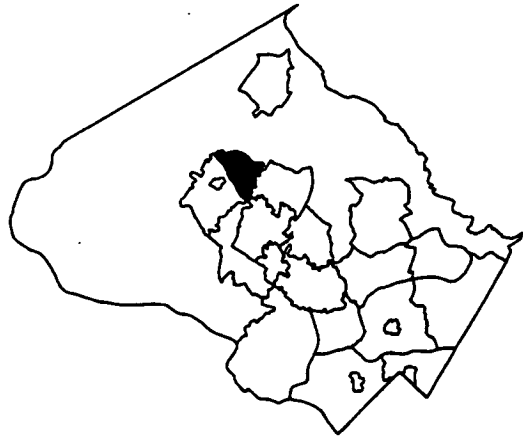


GERMANTOWN EAST

	JOBS	HOUSING
1992 Base	3,487	4,772
Gross Pipeline (9/24/92)	18,491	8,992
FY 93 Gross Ceiling	18,367	9,039
Net Remaining	(124)	47
FY 94 Gross Anticipated Ceiling	18,743	9,836
Net Remaining	376	797

PROFILE (1992 Estimate)

	Number	Rank
Draft Job Queue (10/13/92)	4,975	3
Draft Housing Queue (10/13/92)	968	2
Jobs/Housing Ratio	0.73	12
Land Area in Square Miles	5.96	17

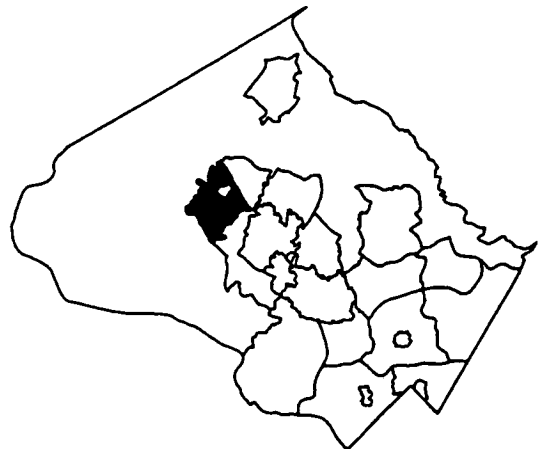


GERMANTOWN WEST

	JOBS	HOUSING
1992 Base	6,436	14,166
Gross Pipeline (9/24/92)	15,674	16,633
FY 93 Gross Ceiling	13,934	15,454
Net Remaining	(1,740)	(1,179)
FY 94 Gross Anticipated Ceiling	12,444	14,525
Net Remaining	(1,490)	(929)

PROFILE (1992 Estimate)

	Number	Rank
Draft Job Queue (10/13/92)	5,992	1
Draft Housing Queue (10/13/92)	5,390	1
Jobs/Housing Ratio	0.45	18
Land Area in Square Miles	10.76	8



GERMANTOWN TOWN CENTER

	JOBS	HOUSING
1992 Base	2,485	9
Gross Pipeline (9/24/91)	5,315	147
FY 93 Gross Ceiling	5,315	111
Net Remaining	0	(36)
FY 94 Gross Anticipated Ceiling	5,315	111
Net Remaining	0	(36)

PROFILE (1992 Estimate)

	Number	Rank
Draft Job Queue (10/13/92)	401	9
Draft Housing Queue (10/13/92)	0	20
Jobs/Housing Ratio	276.11	1
Land Area in Square Miles	0.48	22

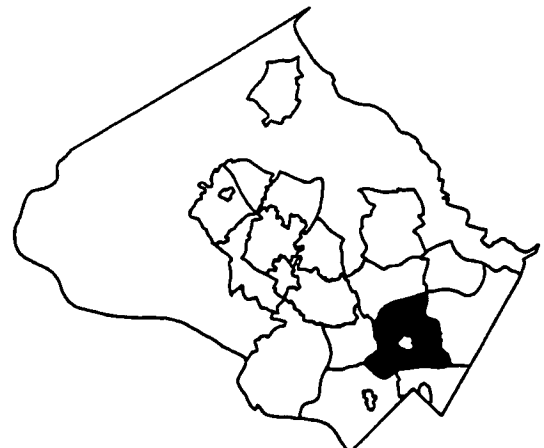


KENSINGTON/WHEATON

	JOBS	HOUSING
1992 Base	13,397	33,354
Gross Pipeline (9/24/92)	13,650	33,993
FY 93 Gross Ceiling	17,613	35,842
Net Remaining	3,963	1,849
FY 94 Gross Anticipated Ceiling	17,613	35,842
Net Remaining	3,963	1,849

PROFILE (1992 Estimate)

	Number	Rank
Draft Job Queue (10/13/92)	221	13
Draft Housing Queue (10/13/92)	374	6
Jobs/Housing Ratio	0.40	19
Land Area in Square Miles	18.89	4

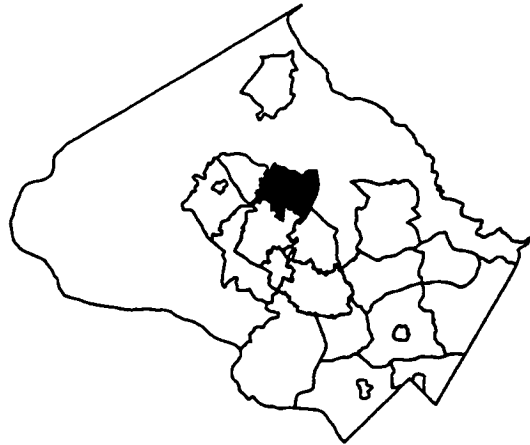


MONTGOMERY VILLAGE/AIRPARK

	JOBS	HOUSING
1992 Base	9,328	14,069
Gross Pipeline (9/24/92)	9,378	15,889
FY 93 Gross Ceiling	4,112	11,667
Net Remaining	(5,266)	(4,222)
FY 94 Gross Anticipated Ceiling	4,112	11,667
Net Remaining	(5,266)	(4,222)

PROFILE (1992 Estimate)

	Number	Rank
Draft Job Queue (10/13/92)	1,100	8
Draft Housing Queue (10/13/92)	322	6
Jobs/Housing Ratio	0.68	13
Land Area in Square Miles	9.82	12

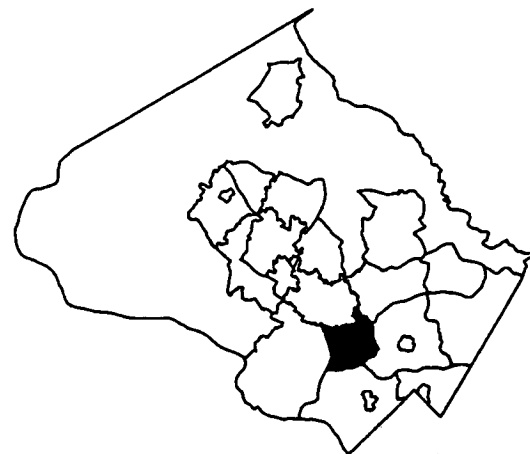


NORTH BETHESDA

	JOBS	HOUSING
1992 Base	67,703	15,408
Gross Pipeline (9/24/92)	79,287	16,518
FY 93 Gross Ceiling	71,642	19,342
Net Remaining	(7,645)	2,824
FY 94 Gross Anticipated Ceiling	71,642	19,342
Net Remaining	(7,645)	2,824

PROFILE (1992 Estimate)

	Number	Rank
Draft Job Queue (10/13/92)	384	10
Draft Housing Queue (10/13/92)	779	3
Jobs/Housing Ratio	4.39	6
Land Area in Square Miles	9.21	14

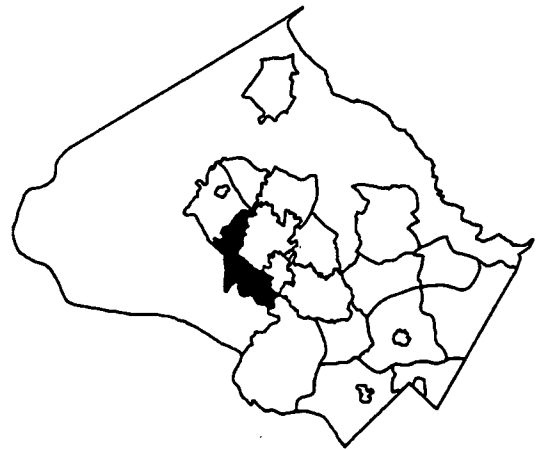


NORTH POTOMAC

	JOBS	HOUSING
1992 Base	542	6,799
Gross Pipeline (9/24/92)	796	8,437
FY 93 Gross Ceiling	692	3,523
Net Remaining	(104)	(4,914)
FY 94 Gross Anticipated Ceiling	692	3,523
Net Remaining	(104)	(4,914)

PROFILE (1992 Estimate)

	Number	Rank
Draft Job Queue (10/13/92)	141	15
Draft Housing Queue (10/13/92)	51	15
Jobs/Housing Ratio	0.08	22
Land Area in Square Miles	10.56	10

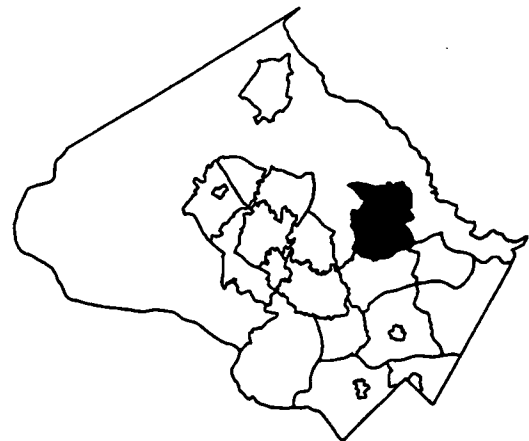


OLNEY

	JOBS	HOUSING
1992 Base	4,087	8,181
Gross Pipeline (9/24/92)	3,764	10,602
FY 93 Gross Ceiling	3,441	9,898
Net Remaining	(323)	(704)
FY 94 Gross Anticipated Ceiling	4,118	10,194
Net Remaining	677	296

PROFILE (1992 Estimate)

	Number	Rank
Draft Job Queue (10/13/92)	328	11
Draft Housing Queue (10/13/92)	366	7
Jobs/Housing Ratio	0.50	16
Land Area in Square Miles	16.93	5



POTOMAC

	JOB	HOUSING
1992 Base	9,434	15,099
Gross Pipeline (9/24/92)	9,557	16,395
FY 93 Gross Ceiling	11,707	18,037
Net Remaining	2,150	1,642
FY 94 Gross Anticipated Ceiling	11,707	18,037
Net Remaining	2,150	1,642

PROFILE (1992 Estimate)

	Number	Rank
Draft Job Queue (10/13/92)	1,377	6
Draft Housing Queue (10/13/92)	130	10
Jobs/Housing Ratio	0.62	15
Land Area in Square Miles	29.45	1

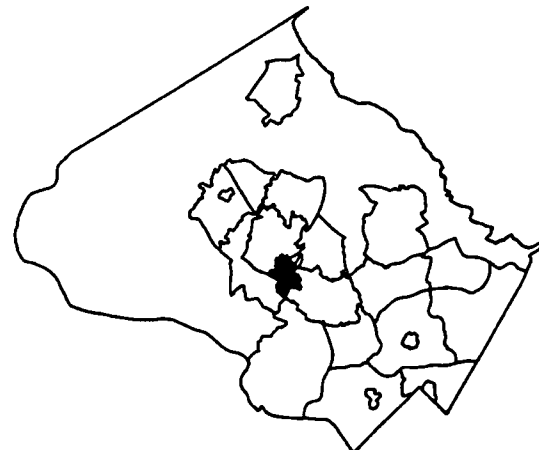


R & D VILLAGE

	JOB	HOUSING
1992 Base	9,668	1,960
Gross Pipeline (9/24/91)	16,085	3,799
FY 93 Gross Ceiling	13,228	3,551
Net Remaining	(2,857)	(248)
FY 94 Gross Anticipated Ceiling	13,228	3,551
Net Remaining	(2,857)	(248)

PROFILE (1992 Estimate)

	Number	Rank
Draft Job Queue (10/13/92)	254	12
Draft Housing Queue (10/13/92)	0	22
Jobs/Housing Ratio	4.93	4
Land Area in Square Miles	3.16	18



ROCKVILLE CITY

	JOBS	HOUSING
1992 Base	55,886	15,791
Gross Pipeline (9/24/92)	74,305	16,992
FY 93 Gross Ceiling	65,385	17,155
Net Remaining	(8,920)	163
FY 94 Gross Anticipated Ceiling	65,385	17,155
Net Remaining	(8,920)	163

PROFILE (1992 Estimate)

	Number	Rank
Draft Job Queue (10/13/92)	0	22
Draft Housing Queue (10/13/92)	0	19
Jobs/Housing Ratio	3.54	8
Land Area in Square Miles	12.38	7

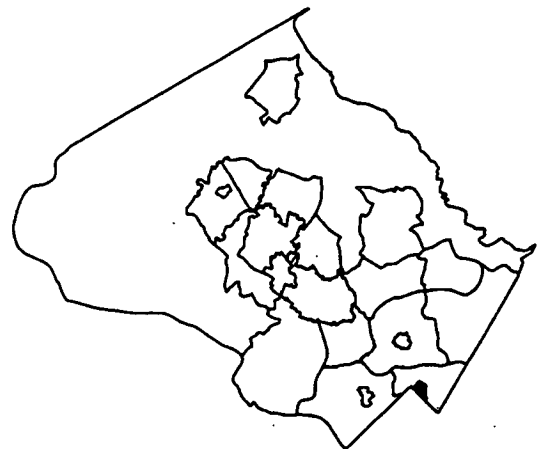


SILVER SPRING CBD

	JOBS	HOUSING
1992 Base	31,410	4,482
Gross Pipeline (9/24/92)	41,994	6,681
FY 93 Gross Ceiling	42,236	7,864
Net Remaining	242	1,183
FY 94 Gross Anticipated Ceiling	42,236	7,864
Net Remaining	242	1,183

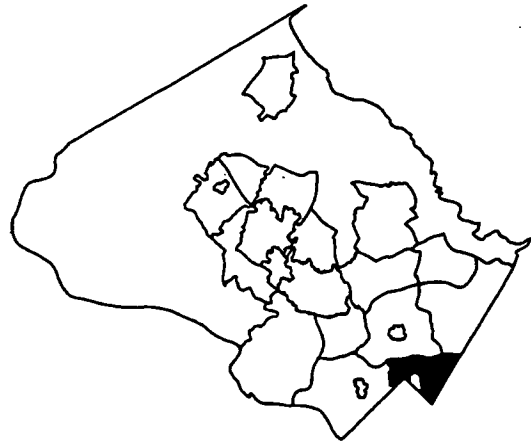
PROFILE (1992 Estimate)

	Number	Rank
Draft Job Queue (10/13/92)	1,957	5
Draft Housing Queue (10/13/92)	109	11
Jobs/Housing Ratio	7.00	3
Land Area in Square Miles	0.59	21



SILVER SPRING/TAKOMA PARK

	JOB	HOUSING
1992 Base	12,528	26,947
Gross Pipeline (9/24/92)	13,433	27,188
FY 93 Gross Ceiling	14,070	29,482
Net Remaining	637	2,294
FY 94 Gross Anticipated Ceiling	14,070	29,482
Net Remaining	637	2,294

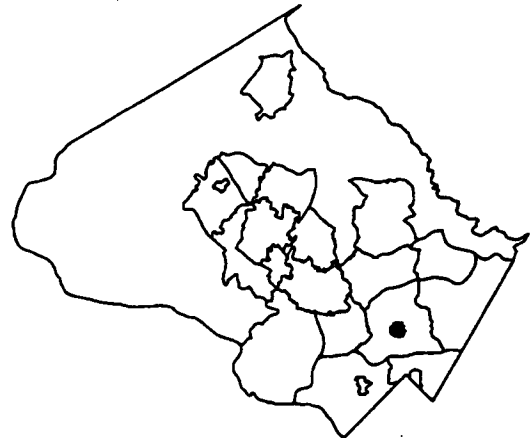


PROFILE (1992 Estimate)

	Number	Rank
Draft Job Queue (10/13/92)	94	16
Draft Housing Queue (10/13/92)	160	9
Jobs/Housing Ratio	0.46	17
Land Area in Square Miles	8.06	16

WHEATON CBD

	JOB	HOUSING
1992 Base	8,728	1,766
Gross Pipeline (9/24/92)	8,786	1,797
FY 93 Gross Ceiling	11,534	3,306
Net Remaining	2,748	1,509
FY 94 Gross Anticipated Ceiling	11,534	3,306
Net Remaining	2,748	1,509



PROFILE (1992 Estimate)

	Number	Rank
Draft Job Queue (10/13/92)	195	14
Draft Housing Queue (10/13/92)	0	21
Jobs/Housing Ratio	4.97	5
Land Area in Square Miles	0.76	19

Appendix 6:

**The
Capital
Improvements
Program**

TABLE 1: LIST OF TRANSPORTATION PROJECTS WHICH ARE 100% PROGRAMMED FOR CONSTRUCTION IN THE FIRST FOUR YEARS OF THE FY 93-98 CIP, THE CITY CIPS, OR THE MDDOT FY 92-97 CONSOLIDATED TRANSPORTATION PROGRAM

M-NCPPC 10/13/92

Policy Area	PDF or Line No.	Project No.	Map No.	Project Name (Underlined) with Phases and/or Limits	Scope of Improvement	Approved Road Program of 7/91	100% of Const. Expenditures By Fiscal Year
ASPEN HILL							
BETHESDA CBD							
BETHESDA/CHEVY CHASE	8-57	793369	2.	<u>Friendship Blvd./The Hills Plaza</u> Phase II: Friendship Boulevard Business Street	4 Lanes	Y	94
CLOVERLY							
DAMASCUS	8-80	883103	3.	<u>MD 124 Extension (A-12)</u> Phase I: 1,150 ft. North from MD 124/MD 108 Intersection	4 Lanes	Y	93
	8-103	873121	4.	<u>Sweepstakes Road</u> Cutsail Drive to 700' east of Stowbarn Lane	Residential Primary	Y	95
DERWOOD/NEEDWOOD/WASHINGTON GROVE/SHADY GROVE	8-112	813127	5.	<u>Avery Road Bridge #49</u> Rock Creek	Replacement	—	95
FAIRLAND/WHITE OAK	8-47	873114	6.	<u>Briggs Chaney Realignment East</u> Old Columbia Pike to 1400' west	2 Lanes	Y	94
	Line 1	161098	7.	<u>I-95/I-495 Capital Beltway</u> West of MD 650 to US 1	+2 Lanes	—	94
	8-49	833888	8.	<u>E. Randolph Road Widening, Phase I</u> b) Kara Lane to Fairland Road c) Fairland Road to Burkhart Street	+4 Lanes +3 Lanes	Y Y	94 94
	8-48	883103	9.	<u>Briggs Chaney Road Widening</u> Phase I: Bridge Widening	+1 Lane	Y	95
	8-48	883103	10.	<u>Briggs Chaney Road Widening: Phase II</u> Section 1: Automobile Blvd/Castle Blvd. to Gateshead Manor Way Section 2: Gateshead Manor Way to 300' south of Dogwood Drive Section 3: 300' south of Dogwood Drive to Fairland Road	+2 Lanes Divided + 1 Lane + 1 Lane	N	95
	8-51	833969	11.	<u>E. Randolph Road Widening, Phase II</u> Fairland Road to Old Columbia Pike	+3 Lanes	Y	95
	8-102	803400	12.	<u>MD 124 Relocated</u> Midcounty Highway to Emory Grove Road	4 Lanes	—	(by developer)
	8-72	743799	13.	<u>Longdraft Road, Phase II</u> Clopper Road (MD 117) from Metropolitan Grove Road to Longdraft Road	+2 Lanes	Y	92

Table 1 (Cont'd.)

Policy Area	PDF or Line No.	Project No.	Map No.	Project Name (Underlined) with Phases and/or Limits	Scope of Improvement	Approved Road Program of 7/91	100% of Const. Expenditures By Fiscal Yea
GAITHERS-BURG CITY (Cont'd.)	8-69	903145 A211	14.	<u>Life Sciences Center Roadway Improvements</u> Item 2: Shady Grove Road at I-270: Choke Cherry Road to Corporate Boulevard	+2 Lanes	Y	94
GERMAN-TOWN EAST	8-78 Line 7	863171 153023	15.	<u>MD 118 Relocated</u> Phase II: I-270 to Frederick Road (MD 355)	+4 Lanes	Y	93
	8-61	873115	16.	<u>Father Hurley Blvd. Extended/Ridge Road</u> Section 1: Eastern Gore I-270/Father Hurley Blvd. Interchange to Ridge Road (MD 27)	4 Lanes Divided	N	96 (by developer)
				Section 2: b) Partial Cloverleaf Interchange with I-270	Interchange	Y	95 (County & developer)
	Line 33	153397	17.	<u>Frederick Avenue (MD 355)</u> b. Middlebrook Road to Ridge Road (MD 27)	+2 Lanes		96 (by developer)
GERMAN-TOWN CENTER	8-61	873115	18.	<u>Father Hurley Blvd. Extended/Ridge Road</u> Section 2: a. Crystal Road Drive to Gore I-270/Father Hurley Blvd.	6 Lanes Divided	Y	96 (County & developer)
				b. Partial Cloverleaf Interchange with I-270	Interchange	Y	95 (County & developer)
	8-172	763644	16.	<u>Germantown MARC Rail Station</u>			93
	MTA Line 23	—	17.	<u>Brunswick Line:</u> <u>Germantown Station Parking Garage</u>	+300 Spaces		96
GERMAN-TOWN WEST	8-61	873115	18.	<u>Father Hurley Blvd. Extended/Ridge Road</u> Section 2: a. Crystal Road Drive to Gore I-270/Father Hurley Blvd.	6 Lanes Divided	Y	96 (County & developer)
				b. Partial Cloverleaf Interchange with I-270	Interchange	Y	95 (County & developer)
	8-86	863125	20.	<u>Middlebrook Road</u> Phase I: Great Seneca Hwy. to I-270	+4 Lanes Divided	N	96 (County & developer)
	8-172	763644	16.	<u>Germantown MARC Rail Station</u>			93
	MTA Line 23	—	17.	<u>Brunswick Line:</u> <u>Germantown Station Parking Garage</u>	+300 Spaces		96
KENSINGTON/WHEATON	8-173	903238	21.	<u>Glenmont Metro Parking Garage</u> WMATA Garage Site	1900 spaces		93
	8-175 Line 1	773954 —	22.	<u>Metrorail Construction</u> Share to extend service to Glenmont			
	8-61	903192	23.	<u>Glenallan Avenue</u> Georgia Ave. (MD 97) to Layhill Rd. (MD 182)	+1 Lane	Y	94
MONTGOMERY VILLAGE/AIRPARK	8-45	853176	24.	<u>Airpark Road/Shady Grove Road Ext.</u> b. MD 124 between MD 124/MD 115 Intersection and Gustin's Greenery	+2 Lanes	Y	93
	8-102	803400	12.	<u>MD 124 Relocated</u> Midcounty Highway to Emory Grove Road	4 Lanes	—	93 (by developer)
	8-123	823754	25.	<u>Watkins Mill Road Bridge</u> Whetstone Run Stream	+2 Lanes	—	96

Table 1 (Cont'd.)

Policy Area	PDF or Line No.	Project No.	Map No.	Project Name (Underlined) with Phases and/or Limits	Scope of Improvement	Approved Road Program of 7/91	100% of Const. Expenditures By Fiscal Year
NORTH BETHESDA	8-119	813691	27.	<u>I-270 Overpass/Westlake-Fernwood Westlake Terrace to Fernwood Road</u>	4 Lanes	Y	96 (County & developer)
NORTH POTOMAC	8-72	743799	13.	<u>Longdraft Road, Phase II</u> Longdraft Road to Game Preserve Road	+2 Lanes	Y	93 (by developer)
OLNEY							
POTOMAC	8-119	813691	27.	<u>I-270 Overpass/Westlake-Fernwood Westlake Terrace to Fernwood Road</u>	4 Lanes	N	96 (County & developer)
	8-100	863110	28.	<u>Seven Locks Road—River Road to Dwight River Road (MD 190) to Dwight Drive</u>	Safety Only	Y	94
R & D VILLAGE	8-69	903145	14.	<u>Life Sciences Center Roadway Improvements</u> Item 2: Shady Grove Road at I-270: Choke Cherry Road to Corporate Boulevard	+2 Lanes	Y	94
ROCKVILLE CITY	—	7Q11	29.	<u>West Montgomery Ave. Reconstruction</u> Nelson Street to Adams Street	+1 Lane	—	93
	8-69	903145	14.	<u>Life Sciences Center Roadway Improvements</u> Item 2: Shady Grove Road at I-270: Choke Cherry Road to Corporate Boulevard	+2 Lanes	Y	94
	8-112	813127 A211	5.	<u>Avery Road Bridge #49</u> Rock Creek	Replacement	—	95
	—	6C11	30.	<u>Fleet Street Extension</u> Richard Montgomery Drive to Ritchie Parkway	4 Lanes	—	96 (City & developer)
	—	6K11	31.	<u>Southlawn Lane - Lofstrand to Gude</u>	Widening to Standard	—	96
	—	6E12	32.	<u>Southlawn/Dover Connector</u> at Lofstrand Lane	2 Lanes	—	96
	—	9F12	33.	<u>Southlawn Lane West</u> Lofstrand Lane to N. Horners Lane	Widen to Standard	—	96
SILVER SPRING CBD	8-133	873116	34.	<u>Silver Spring Intersections/Roadway Improvements</u> (Completions Vary by Improvement)		—	93 to beyond 98
SILVER SPRING/TAKOMA PARK	Line 1	161098	7.	<u>I-95/I-495 Capital Beltway</u> West of MD 650 to US 1	+2 Lanes	Y	93
	8-133	873116	34.	<u>Silver Spring Intersections/Roadway Improvements</u> (Completions vary by Improvement)		—	93 to beyond 98
WHEATON CBD							

TABLE 2: LIST OF TRANSPORTATION PROJECTS BY POSSIBLE FISCAL YEAR OF IMPLEMENTATION BASED UPON THE FY 93-98 CIP and DRAFT FY 93-98 CTP

M-NCPPC 10/13/92

Policy Area	PDF or Line No.	Project No.	Map No.	Project Name (Underlined) with Phases and/or Limits	Scope of Improvement	100% of Cons. Expenditure by			
						FY 97-	FY97	FY98	FY98+
ASPEN HILL	8-90 Line 24	933121 153305	35.	<u>Norbeck Road-Spencerville Road Connector</u> Layhill Rd. (MD 182) to New Hampshire Avenue (MD 650)	2 Lanes		X		
	Line 22 8-65	154168 863117	36.	<u>Intercounty Connector</u> I-370 to US 1	Project Planning Study				X
BETHESDA CBD	Line 8 8-168	— 873198	37.	<u>Georgetown Branch Light Rail</u> <u>(East-West Transitway)</u> Silver Spring to Bethesda Metro Rail Stations	Under Study				X
BETHESDA/ CHEVY CHASE	Line 6	151114	38.	<u>I-495 (Capital Beltway)</u> Connecticut Ave. (MD 185) Interchange	Reconstruct Interchange		X		
CLOVERLY	8-81 Line 16	893128 153337	39.	<u>MD 650-Briggs Chaney Road-Norwood Rd.:</u> Section 2: ICC to Briggs Chaney Road Briggs Chaney-Norwood Road Realignment Briggs Chaney Rd. to Spencerville Rd. (MD 198) Section 3: Relocated Briggs Chaney Road to Norwood Road	+1 Lane +1 Lane +1 Lane Reconstruct		X X X X		
	8-90 Line 24	933121 153305	35.	<u>Norbeck Road-Spencerville Road Connector</u> Layhill Rd. (MD 182) to New Hampshire Avenue (MD 650)	2 Lanes		X		
	Line 22 8-86	154168 863117	36	<u>Intercounty Connector</u> I-370 to US 1	Project Planning Study				X
DAMASCUS	8-80	883105	40.	<u>MD 124 Extension (A-12)</u> Phase 2: 1,150 feet North MD 108/MD 124 to Ridge Road (MD 27)	2 Lanes				X
DERWOOD/ NEEDWOOD/ WASHINGTON GROVE/SHADY GROVE	Line 22 8-65	154168 863117	36.	<u>Intercounty Connector</u> I-370 to US 1	Project Planning Study				X
	Line 26	153414	41.	<u>MD 124/MD 27 Corridor Study</u> MD 355 to MD 80	Project Planning Study				X
FAIRLAND/ WHITE OAK	8-81 Line 16	893128 153337	39.	<u>MD 650-Briggs Chaney Road-Norwood Rd.</u> Section 1: Randolph Road to Notley Road Notley Road to the ICC	+2 Lanes +4 Lanes		X X		
	Line 22 8-86	154168 863117	36.	<u>Intercounty Connector</u> I-370 to US 1	Project Planning Study				X
	8-53	893134	42.	<u>Fairland Road East</u> Columbia Pike (US 29) to PG County Line	Safety Widening				X
	Line 7	152042	43.	<u>US 29, Columbia Pike</u> Bridge over New Hampshire Avenue (MD 650)	+2 Lanes	(95)			
	Line 21	152019	44.	<u>US 29 Improvement Study</u> Sligo Creek (at I-495) to Howard County	Project Planning Study				X
	8-96	923174	45.	<u>Robey Road</u> South of Briggs Chaney Road to Greencastle Road	Safety (Planning only)				X

Table 2 (Cont'd.)

Policy Area	PDF or Line No.	Project Line	Map No.	Project Name (Underlined) with Phases and/or Limits	Scope of Improvement	100% of Cons.		Expenditure by	
						FY-97-	FY97	FY98	FY98+
SAITHERS-BURG CITY	Line 13	153386	46.	<u>MD 124, Quince Orchard Road</u> Damestown Road (MD 28) to Longdraft Road	+2 Lanes Divided			X	
	8-71	883101	47.	<u>Goshen Road</u> Phase I. Girard Street to Warfield Road Phase II. Warfield Road to MD 124	+2 Lanes Safety Widening				X X
	Line 23	153387	48.	<u>MD 28, Damestown Road</u> Key West Avenue to Riffleford Road	+2 Lanes Divided				X
	Line 25	153435	49.	<u>MD 117, Clopper Road</u> Frederick Avenue (MD 355) to Clarksburg Road (MD 121)	Reconstruct, Project Planning Study				X
	8-109	883109 77-3	50.	<u>Watkins Mill Road Extended</u> Clopper Road (MD 117) to Frederick Avenue (MD 355)	4-Lane Divided				X
GERMANTOWN EAST	—	—	51.	<u>Frederick Avenue (MD 355)</u> a. Middlebrook Road to Watkins Mill Road	+2 Lanes		X*		
	Line 15	153397	55.	<u>MD 355, Frederick Avenue</u> Montgomery Village Avenue (MD 124) to Middlebrook Road	+2(6) Lanes Divided				X
	Line 15	151094	52.	<u>I-270</u> Father Hurley Boulevard to Clarksburg Road (MD 121)	+2 Lanes		X		
	8-58	863116	53.	<u>Germantown/Montgomery Village Connector (M-83)</u> Section 1: Montgomery Village Avenue MD 118 Extended	4 Lanes Divided				X
	Line 18	102062	54.	<u>I-270 and US 15, Frederick Freeway</u> I-270: MD 124 to Frederick County Line	Project Planning Study				X
	Line 26	153414	41.	<u>MD 124/MD 27 Corridor Study</u> MD 355 to MD 80	Project Planning Study				X
GERMANTOWN CENTER	8-78 Line 12	863171 153023	15.	<u>MD 118 Relocated</u> Phase I: Wisteria Drive to Clopper Road (MD 117)	+2 Lanes Divided			X**	
	—	—	56.	<u>Brunswick Line:</u> <u>MARC Service Extension to Frederick</u>					X
GERMANTOWN WEST	Line 5	151094	52.	<u>I-270</u> Father Hurley Boulevard to Clarksburg Road (MD 121)	+2 Lanes		X		
	8-76	913100	57.	<u>MD 117 Widening - Germantown</u> Great Seneca Highway to 1000' east of Germantown Road (MD 118)	+4 Lanes Divided			X**	
	8-78 Line 12	863171 153023	15.	<u>MD 118 Relocated</u> Phase I: Wisteria Drive to Clopper Road (MD 117)	+2 Lanes Divided			X**	
	8-58	863116	53.	<u>Germantown/Montgomery Village Connector (M-83)</u> Section 1: Montgomery Village Avenue to MD 118 Extended	4 Lanes Divided				X
	Line 18	102062	54.	<u>I-270 and US 15, Frederick Freeway</u> I-270: MD 124 to Frederick County	Project Planning Study				X

* To be funded for construction by Germantown East Developers.
 ** To be funded for construction by Germantown West Road Club (Developers).
 *** Schedule dependent upon developer contribution.

Table 2 (Cont'd.)

Policy Area	PDF or Line No.	Project Line	Map No.	Project Name (Underlined) with Phases and/or Limits	Scope of Improvement	100% of Cons.		Expenditure by	
						FY-97-	FY97	FY98	FY98+
	Line 25	153435	49.	<u>MD 117, Clopper Road</u> Frederick Avenue (MD 355) to Clarksburg Road (MD 121)	Reconstruct, Project Planning Study				X
	—	—	56.	<u>Brunswick Line:</u> <u>MARC Service Extension to Frederick</u>					X
KENSINGTON/ WHEATON	Line 8	152043	57.	<u>US 29, Columbia Pike</u> Intersection Reconstruction at MD 193 (Four Corners)	Project Planning Study				X
	Line 21	152019	44.	<u>US 29 Improvement Study</u> Sligo Creek (at I-495) to Howard County Line	Project Planning Study				X
MONTGOMERY VILLAGE/ AIRPARK	8-58	863116	53.	<u>Germantown/Montgomery Village Connector (M-83)</u> Section 1: Montgomery Village Avenue to MD 118 Extended	4 Lanes Divided				X
	8-71	883101	47.	<u>Goshen Road</u> Phase II. Warfield Road to MD 124	Safety Widening				X
	Line 26	153414	41.	<u>MD 124/MD 27 Corridor Study</u> MD 355 to MD 80	Project Planning Study				X
NORTH BETHESDA	Line 3	151105	58.	<u>I-270: East Spur</u> Y Split to I-495	+2 Lanes	(95)			
	Line 2	151104	59.	<u>I-270: West Spur</u> Y Split to I-495	+2 Lanes		X		
	Line 19	151112	60.	<u>I-270 and I-270 Spur</u> East Spur: at Old Georgetown Road (MD 187) West Spur: at Democracy Blvd.	Reconstruct Upgrade, Project Planning Study				X
NORTH POTOMAC	Line 13	153386	46.	<u>MD 124, Quince Orchard Road</u> Darnestown Road (MD 28) to Longdraft Road	+2 Lanes Divided			X	
	Line 23	153387	48.	<u>MD 28, Darnestown Road</u> Key West Avenue to Riffelford Road	+2 Lanes Divided				X
	Line 25	153435	49.	<u>MD 117, Clopper Road</u> Frederick Avenue (MD 355) to Clarksburg Road (MD 121)	Reconstruct, Project Planning Study				X
OLNEY	Line-11 8-74	153370 903129	62.	<u>Laytonsville-Sandy Spring Road (MD 108)</u> Olney Mill Road to Dr Bird Road (MD 182)	+2 Lanes Divided		X		
	8-77 Line 22	863117 154168	35.	<u>Intercounty Connector</u> I-370 to US 1	Project Planning Study				X
POTOMAC	Line 27	153371	63.	<u>Falls Road (MD 189)</u> River Road (MD 190) to Wootton Parkway	Project Planning Study				X
R & D VILLAGE	Line 9	153439	61.	<u>MD 28, Darnestown Road</u> I-270 to Research Boulevard Research Boulevard to Gude Drive	+2 Lanes 6 Lanes Divided			X X	
	Line 23	153387	48.	<u>MD 28, Darnestown Road</u> Key West Ave. to Dufief Mill Road	+2 Lanes Divided				X
	8-80	863179	64.	<u>Key West Avenue-Gude Drive to I-270</u> Section 1: Gude Drive to 600' west of Research Blvd. Section 2: 600' west of Research Blvd. to 600' east of Hurley Avenue	6 Lanes Divided 7 Lanes Undivided				X X

* To be funded for construction by Germantown East Developers.

** To be funded for construction by Germantown West Road Club (Developers).

*** Schedule dependent upon developer contribution.

Table 2 (Cont'd.)

Policy Area	PDF or Line No.	Project Line	Map No.	Project Name (Underlined) with Phases and/or Limits	Scope of Improvement	100% of Cons. FY-97-	FY97	Expenditure by FY98	FY98+
ROCKVILLE CITY	—	8B11	65.	<u>Chapman Avenue</u> Halprine Road to Rockville Pike (MD 355)	2 Lanes			X***	
	—	0B11	66.	<u>Wootton Parkway - Falls Road to Rt. 28</u>	+2 Lanes Divided			X	
	Line 9	153439	61.	<u>MD 28, Damestown Road</u> I-270 to Research Boulevard Research Boulevard to Gude Drive	+2 Lanes 6 Lanes Divided			X X	
SILVER SPRING CBD	8-133	8731 16	34.	<u>Silver Spring Intersections/Roadway Improvements</u> (Completions Vary FY 93 to beyond FY98)	Under Study				X
	Line 8 8-168	— 873198	36.	<u>Georgetown Branch Light Rail (East-West Transitway)</u> Silver Spring to Bethesda Metro Rail Stations	Under Study				X
SILVER SPRING/ TAKOMA PARK	8-133	8731 16	34.	<u>Silver Spring Intersections/Roadway Improvements</u> (Completions Vary FY 93 to beyond FY98)	Under Study				X
WHEATON CBD									

* To be funded for construction by Germantown East Developers.

** To be funded for construction by Germantown West Road Club (Developers).

*** Schedule dependent upon developer contribution.

CONTRIBUTING STAFF

Robert W. Marriott, Jr.....Planning Director
Charles Loehr.....Deputy Planning Director
Robert Winick.....Chief, Transportation Planning Division
Drew Dedrick.....Chief, Research & Information Systems Division
Bud Liem.....Coordinator, Transportation Planning Division
Eric Graye...Acting Coordinator, Transportation Planning Division
Ajay Kumar.....Planner, Transportation Planning Division
David Levinson.....Planner, Transportation Planning Division
Karl Moritz.....Planner, Research & Information Systems Division
Lonnie Rorie.....Planner, Research & Information Systems Division
Carol Dickey.....Coordinator, Planning Director's Office

Ed Axler
Kathy Woodworth
Alex Hekimian
Charles Coleman
Fred Peacock

Beverly White
Brandt Hare
William Berryhill
Walter Robinson
Sheila Sampson
Lembit Jogi

Greg Shonting
Beverly White
Wayne Koempel
Norma Roy
Linda Miller



THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION
8787 GEORGIA AVENUE
SILVER SPRING, MARYLAND
20910-3760

MONTGOMERY COUNTY PLANNING DEPARTMENT